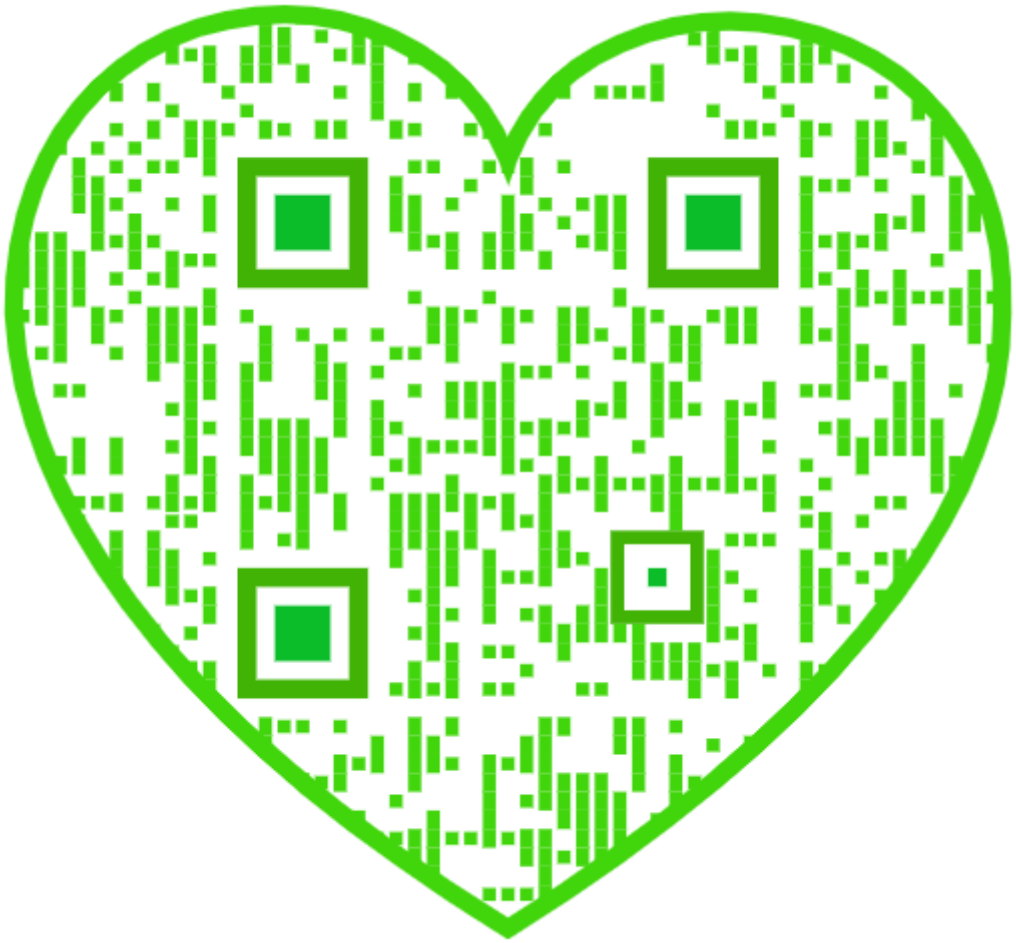
QUIZ-MANUAL OF THE THEORY AND PRACTICE OF TEACHING

A. P. SOUTHWICK



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A QUIZ MANUAL

OF THE

THEORY AND PRACTICE

OF

TEACHING.

BY

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NEW YORK AND CHICAGO:

E. L. KELLOGG & CO.,

1888.

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"The Teacher is the Soul of the School."

"As the Teacher is, so is the School."

Thinking, not growth, makes manhood. Accustom yourself, therefore, to thinking. Set yourself to understand whatever you see or read. To join thinking with reading is one of the first maxims, and one of the easiest operations. —ISAAC TAYLOR.

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PREFACE.

Aware of the fact that a work of this nature invites criticism because the canons of pedagogy are not fixed and immutable like those of mathematics, and that there are opposing views on all the subjects here discussed, the writer has refrained from making statements that may seem dogmatic, and has tried to avoid all appearance of inviting antagonistic reflections, or of conflicting with *general* professional opinion. The teacher should know that there is pre-eminently no "The Method." Method is the outgrowth of philosophy, and must adjust itself to the laws of mind and to the exigencies of science. The power of every true teacher is in himself, his personality, his character, his spirit, and his attainments.

"The science of teaching is a broad one, embracing many laws, and the facts to be noted in actual work are of sufficient importance to induce the thoughtful student to study its philosophy. The true teacher ever seeks to classify the facts daily observed in his teaching, drawing a distinction between those on the one hand which lead to nothing, and those which furnish the ground-work to laws and principles

which make teaching a distinct profession. Use more facts ; look for more laws ; study the relation of the one to the other."

No apology is offered for the repetition of certain ideas in the text, the duplication of which is essential to a thorough analysis of the subject in its various divisions.

A. P. S.

BALTIMORE, MD., August 10, 1888.

CONTENTS.

With few variations, the subject-matter will be found arranged as indicated below. The number enclosed in the parentheses is that of the query commencing the special division.

(1) What is Education?

Education Defined.—Noted Educators.—"New Education."—Methods.—Kindergarten Instruction.—Teaching, Talking, and Telling, ... 7

(29) Reading.

Primary and Advanced.—Methods.—Questioning.—Primary Literature.—General Information.—News Bulletin.—Drills.—Elocution, ... 8

(76) Arithmetic.

Teaching Number.—Mental Work.—Analysis.—Inverting the Divisor.—Tables of Measure and Money.—Squaring.—Rules.—Arithmetical Signs.—Longitude and Time.—Higher Mathematics.—Metric System, ... 10

(143) Natural History.

Teaching it, ... 14

(146) Language Lessons and Grammar.

Methods.—Diagrams.—"Verbal Purism."—Outlining.—Routine Teaching.—Definitions.—Prosody.—Punctuation, . 14

(187) Composition.

Letter-writing.—Methods.—Selection of Topics, ... 16

(202) Rhetoric.

Teaching it, ... 16

(204) Etymology.

Teaching it, ... 17

(207) Literature.

Methods.—Scrap-book.—Arousing Interest.—Higher Instruction, ... 17

(220) Orthography.

Oral.—Written.—Primary.—Methods.—Spelling-matches.—Definition Class.—Use of Dictionary.—Orthoëpy.—Diacriticals.—Drills.—Orthographic Parsing, ... 17

(247) Psychology.

Its use, etc., ... 19

(250) Natural Science.

Science Teaching.—"Query Box."—Remedy for Defects in Teaching, ... 19

(256) Physiology.

Methods.—School Hygiene.—As a Moral Factor.—Preservation of Health.—Calisthenics.—Ventilation.—Lessons in Plants.—Plea for the Sciences, ... 19

(280) Geography.

Methods.—Use of the Globe.—"Moulding."—Descriptive Geography. — Map-drawing. — Writing Pad. — "New Method."—Games. — Variation.—Note-book.—Astronomy.—Place-names.—Standard Time, ... 21

(320) History.

Methods.—Primary Teaching.—Ethics of History.—Discarding the Text-book.—Mnemonics.—Exciting Interest.—Collateral Reading.—Current History.—Civil Government.—Its Importance.—Patriotism, ... 23

(352) Penmanship.

Methods. — Mechanical Systems. — Primary Instruction.—Letter-writing, ... 24

(364) Drawing.

Observation Culture.—Industrial, ... 25

(374) Discipline.

Government. — Why Kindness Fails.— Motives. — External Conditions. — Aids to Discipline. — Human Nature. — Chronic Diseases.—The Remedy.—Punishment.—Moral Training, ... 25

(432) Attention.

Means of Securing.—How to Fail.—The Highest Art, . . 28

(444) Miscellaneous.

Opening School.— Programme.— Recitations.— Whispering. — No Recess. — "Seven Laws of Teaching."— Friday Afternoons.—Music.—Dismissal.—Habits of the Teacher.— Bookkeeping.— Exhibitions.—Expositions.—Giving Assistance.— Making Presents.—Industrial Training.—Examinations.—Schools and Teachers.—Giving Prizes.—Director and Teacher, ... 29

(501) Addenda.

Manual Training, ... 32

QUESTIONS.

EDUCATION AND TEACHING.

1. What is the great problem in education?
2. What is education?
3. Name some noted educators.
4. What are the "Nine Laws" of Pestalozzi?
5. What educational principles have always been asserted?
6. What is meant by the "New Education"?
7. What change is indicated?
8. What is meant by the History of Education?
9. What is the object of education?
10. What may be said of the educator?
11. Can "anybody" teach school?
12. Of what does the "Art of Teaching" consist?
13. What does the Theory and Practice of Teaching embrace?
14. What is a method of instruction?
15. How many methods are there in use?
16. What is the Socratic method?
17. Is a knowledge of mental philosophy of any benefit?
18. What, then, is one element of successful teaching?

19. What is meant by mental faculties?

20. What are aids in cultivating memory?

21. What class of teachers do our primary schools require?

22. What salaries should be paid primary teachers?

23. What is Kindergarten instruction?

24. How may "nature lessons" be taught?

25. What is the difference between the work of the teacher and that of the pupil?

26. What is the difference between teaching and talking?

27. What is the difference between telling and teaching?

28. What faculty is predominant in teaching?

READING.

29. What is reading?

30. How can we teach children to talk?

31. What are the characteristics of a good reader?

32. What are the ends to be attained in teaching reading?

33. Should we "mind the pauses"?

34. How many methods are used in teaching children to read?

35. What may be said of these methods?

36. How is the "object method" used?

37. For what is the "look-and-say" method claimed to be advantageous?

38. What is the application of the "word-building" method?

39. Should the spelling of words in the reading lesson be allowed?

40. Should we follow the rules given for inflection?

41. What are the results of "Mental Picturing"?

42. What illustration can be given of this?

43. What distinction can be made between "good reading" and elocution?

44. Why should primary instruction be more largely oral than higher instruction?

45. What is the "Golden Rule" relative to talking in the school-room?

46. What may be said of questioning?

47. What are its various classes?

48. Describe Socratic questioning.

49. When is Examination questioning used?

50. Why are "leading questions," or questions that can be answered by "Yes" or "No," objectionable?

51. What is meant by the term Exposition?

52. State your opinion of what a child of average ability should accomplish in the first year at school.

53. What do you understand by unconscious tuition?

54. What is the best evidence of thorough instruction on the part of the teacher?

55. Should the teacher make special preparation for the reading class?

56. How may the teacher succeed in giving instruction in reading?

57. What is the most common error among readers?

58. Should pupils be required to commit to memory the definitions in the readers?

59. How would you instruct a class using the second reader?

60. What variations may be used in the reading lessons?

61. What is the first step toward the introduction of the pupil to the study of literature?

62. How should instruction be given in the third reader?

63. How is the dictionary to be used?

64. When is such a drill to be given?

65. What illustration can be given of these errors?

66. How is this fault to be corrected?

67. What are the advantages of this plan?

68. Should newspapers be used in the school?

69. How can this theory be applied in the district school?

70. To what will this lead?

71. Has instruction in "phonics" proved beneficial in connection with the reading lessons?

72. What are the three forms of reading?

73. Is this ordinarily taught in schools?

74. What are "reading drills"?

75. What is one express fault in the pupil's reading?

ARITHMETIC.

76. What is the object of a recitation in Arithmetic?

77. Explain the Grube method.

78. What should be taught the second year?

79. Describe the plan of procedure after this.

80. Which operations in arithmetic are essential?

81. How do you conduct a recitation in arithmetic?

82. How should "catch-questions" be treated.

83. What must be remembered in teaching "number"?

84. Is primary teaching of the utmost importance?

85. What should be taught a child at first; the process of writing numbers, or the rule of notation?

86. What are the results to be obtained by the study of Mental Arithmetic?

87. Mention some of the "common artifices" that may be used.

88. What is the value of mental analysis in teaching arithmetic?

89. Of what practical benefit, if any, are the G. C. D. and L. C. M.?

90. What is the simplest method of finding the greatest common divisor?

91. In division by fractions, how do you explain the inversion of the divisor?

92. Which should be taught first, long or short division, and why?

93. Should instruction in common or decimal fractions have precedence, and why?

94. What are the "new methods" in arithmetic?

95. How are the tables of weights and measures taught?

96. How can all arithmetical problems be taught?

97. What are the results of these "new methods"?

98. Give an illustration of primary teaching in arithmetic.

99. What method has been used in teaching Federal money?

100. What should be impressed upon the pupils?

101. Give an illustration by means of a problem.

102. How may this subject be extended?

103. How should problems be "worked" by the class?

104. What is the new method of squaring numbers?

105. What is the real arithmetic?

106. How is arithmetic *generally* taught?

107. Should problems be solved by rule?

108. What is displayed by analysis?

109. What language should be used?

110. Of what does the solution of a problem consist?

111. Why are language and arithmetic the two most important subjects taught in the school?

112. What has been taught for arithmetic?

113. What is the correct use of mental arithmetic?

114. Why has mental arithmetic fallen into disfavor?

115. Are errors taught in arithmetic?

116. Should arithmetical "curiosities" be used in the school-room?

117. What is the origin of the arithmetical signs?

118. What is the source of the division sign?

119. Of what does the child's real knowledge of number consist?

120. How is a knowledge of things and their names together to be learned?

121. What instruction follows this?

122. What is one cause of the confused knowledge of arithmetic found in older pupils?

123. When should the use of objects be discontinued in teaching arithmetic?

124. How should higher or written arithmetic be taught?

125. What is the most difficult division of arithmetic to teach?

126. What may be said regarding the teaching of problems of longitude and time?

127. How is this to be remedied?

128. How may this principle be further instilled into the minds of the pupils?

129. With what class of problems in longitude and time is the greatest difficulty experienced?

130. State the difference between teaching a rule inductively and deductively.

131. How much assistance should be given to the pupil in the arithmetic class?

132. How should mensuration be taught?

133. How shall the New Education be accepted?

134. What should be one characteristic of a recitation in arithmetic?

135. What should be prominent in the instruction in arithmetic?

136. State the difference between the objective and subjective course in arithmetic.

137. What are the principles of instruction in Algebra?

138. Of what value is Geometry as a study?

139. State briefly the importance of a course in the elements of geometry.

140. What may be said of methods in the Higher Mathematics?

141. When should Algebra be studied?

142. Should the Metric System be prominently taught?

NATURAL HISTORY.

143. How are the Natural History sciences taught?

144. How are Philosophy and Chemistry to be taught?

145. What may be said of studies outside the text-book?

LANGUAGE LESSONS AND GRAMMAR.

146. What is meant by Language Lessons?

147. What fact follows from this principle?

148. Why should pupils be required to recite in good language?

149. How does the pupil acquire the use of good English?

150. Why should we study grammar?

151. How should children be taught English Grammar? When?

152. Of what benefit are diagrams?

153. When does their use become injurious?

154. The formation of correct habits of speech demands what?

155. What are cognates of this study?

156. What is the principal subject of school instruction?

157. Of what must the young teacher be careful?

158. What may be said of "verbal purism"?

159. How is this exhibited at Institutes?

160. What are really the "two troublesome words" to the teacher?

161. What are the "common errors of speech" among pupils?

162. How are these errors to be corrected?

163. How may this subject be further illustrated?

164. What is the principal fault in grammar instruction?

165. By what result is it followed?

166. What may be said of the conclusion that grammar should never be studied?

167. State your method of teaching grammar.

168. What, then, should the teacher do?

169. What is the relation of habit to grammar instruction?

170. How can correct language only be attained?

171. What will be the result of this unconscious tuition?

172. What should be shunned by the teacher?

173. What may be said of all methods of teaching grammar?

174. State one of these "original" methods.

175. What does this method insure?

176. What are the advantages of written parsing?

177. What kind of oral parsing may be used?

178. What are the especial benefits of this method?

179. How may "routine teaching" in grammar be avoided?

180. How should the verb be introduced to the notice of the class?

181. What definitions should be given in grammar?

182. In view of this, what should characterize the teaching of definitions?

183. Should prosody be taught in the common schools?

184. How much punctuation may be taught by the district teacher?

185. Illustrate a Lesson in Grammar.

186. What questions may then be asked?

COMPOSITION.

187. What may be said of the Composition problem?

188. What are the "helps" to the teacher in this exercise?

189. What is one "practical form" of composition?

190. What should be the first form of a composition?

191. What subjects should be given for composition?

192. Should the teacher select the topics?

193. How often should the composition exercise be given?

194. What success have you had in teaching composition?

195. How is a class to be instructed in original production?

196. Of what length should the composition be?

197. What form of composition can be taught?

198. Name one of the most valuable exercises in grammar.

199. What are unnoticed ellipses?

200. What forms of grammatical structure should the teacher give?

201. When should advanced grammar be taught?

RHETORIC.

202. How is rhetoric taught?

203. By what is this followed?

ETYMOLOGY.

204. Is etymology an advanced study?

205. Of what benefit is etymology to the reader?

206. How should it be taught?

LITERATURE.

207. What is the highest form of word memorizing?

208. Can literature be taught in the common schools?

209. How should it be taught?

210. Under what form may this topical outline be arranged?

211. How can pupils gain a knowledge of the author's life and writings?

212. What special effort should the teacher make in teaching literature?

213. How is the literary scrap-book to be used?

214. What is one form of arousing interest in the study?

215. How is the study of literature abused?

216. How should literature be taught in advanced classes?

217. What methods are used in the higher grades of schools?

218. How should the selections be treated?

219. What is meant by the History of Literature?

ORTHOGRAPHY.

220. What is the purpose of spelling?

221. What are the methods of teaching spelling?

222. What are the advantages of the pronunciation of the syllables in oral spelling?

223. To what should the child be led in writing words?

224. How is correct spelling to be attained?

225. What are the benefits of practice in spelling by sound?

226. What may be said of the relative merits and demerits of oral and written spelling?

227. What conditions are attached to oral spelling?

228. By what means should spelling be taught?

229. Should the spelling book be abolished from the school-room?

230. Should the spelling lessons be kept?

231. What directions may be given to pupils for studying their spelling lessons?

232. Do you have spelling matches or "bees" in your school? If so, why?

233. Does constant spelling necessarily make a speller?

234. To what does this lead?

235. How is the definition class to be taught?

236. Name some of the valuable uses of the dictionary.

237. What else may be learned from the dictionary?

238. What is the connection of the teacher with this study?

239. What is the best method of using the dictionary in our common schools?

240. What is connected with this?

241. In what respect are teachers deficient?

242. Name one especial disadvantage of written spelling.

243. What are the "steps" given in teaching written spelling?

244. Should primary pupils be taught the sounds of letters?

245. Give some of the rules for the new spellings.

246. How is orthographic parsing to be taught?

PSYCHOLOGY.

247. Should the teacher possess a knowledge of Psychology?

248. What connection has Mental Philosophy with the teacher's work?

249. What may the teacher especially learn?

NATURAL SCIENCE.

250. How should Natural Science be taught?

251. Of what practical benefit is a knowledge of natural science?

252. What effect has science teaching upon the pupil?

253. What defect in teaching do scientific studies remedy?

254. What can be taught in connection with Natural Philosophy?

255. What practical chemistry can be taught?

PHYSIOLOGY.

256. Has not Physiology been much neglected in our common schools?

257. What are the important results of this study?

258. What primary instruction may be given?

259. Of what value is a knowledge of physiology to the teacher?

260. What may be said of School Hygiene?

261. How has the subject been taught?

262. What moral lessons are to be instilled?

263. What other division of the subject can be taught?

264. What is the teacher's duty?

265. How should the teacher exercise care of pupils?

266. What should be the teacher's first care?

267. What relation does this subject bear to the teacher as an individual?

268. What are the benefits of calisthenic exercise?

269. How is the school-room to be ventilated?

270. Have new methods of ventilation come into use?

271. Give a method for ventilating the school-room.

272. How may this method be improved?

273. What may be said of physical training in the school-room?

274. What may be taught in connection with this subject?

275. Where can this be taught most successfully?

276. How is the teacher to make proper preparations for this instruction?

277. How is the perfection of ventilation to be reached?

278. What is of the utmost importance to the teacher?

279. What is a practical illustration of the uses of hygiene?

GEOGRAPHY.

280. Why should a pupil be taught the geography of his home before he is taught that of the earth?

281. How would you show a child that the appearance of a ship at sea is a proof of the earth's rotundity?

282. How should the globe be used?

283. What should be the method of teaching geography?

284. What are the conditions of primary geography teaching?

285. What is the origin of this fault?

286. How is the study of geography to be introduced to the pupil?

287. Describe a "recitation" at the moulding-board table.

288. When should map-drawing be commenced?

289. Should maps be used in giving primary instruction?

290. How can the "cardinal points" be practically taught?

291. How should map-drawing be taught to small children?

292. What should be the first instruction in map-drawing?

293. What has been given as an elementary exercise?

294. By what may this be followed?

295. How much time should be devoted to the exercise?

296. What is the "new method" of studying geography?

297. What are the succeeding "steps"?

298. How are errors made by the pupil to be corrected?

299. In what are teachers lamentably deficient?

300. Should memorizing of the text be allowed?

301. What forms the basis for all accurate geographical study?

302. How can the monotony of a geography recitation be relieved?

303. What other "diversions" can be used?

304. Give a common method of teaching geography.

305. How does the teacher conduct the recitation?

306. Does this method give a good result?

307. What other method has been used?

308. What is your method of teaching geography?

309. How may this method be improved?

310. What is the length of the lesson assigned?

311. When should reviews be given?

312. What may be used in connection with the advanced class?

313. How can geological changes be shown?

314. What further representations can be made?

315. What study is useful in connection with geography?

316. How is a topical recitation given?

317. To what may the attention of pupils be called?

318. What do you know of the "new standard of time"?

319. What study is the natural ally of geography?

HISTORY.

320. How should history be taught?

321. How would you teach history in our common schools?

322. How is an interest to be awakened in the study?

323. In what way are historical errors to be detected?

324. How is history to be taught in the primary grades?

325. What is meant by the ethics of history?

326. To what does a study of history lead?

327. How may the study of literature be made to subserve the study of history?

328. Should the text-book be discarded with advanced classes?

329. Should mnemonics be used in teaching history?

330. What system of mnemonics do you use?

331. How do you assist pupils in memorizing dates?

332. Should history lessons be read?

333. How is the pupil's interest in the study to be obtained?

334. How is an advanced class to be taught?

335. What use is to be made of dates in teaching history?

336. What is the *great principle* in the teaching of history?

337. How should primary instruction be commenced?

338. What, then, should be the grand object of the teacher?

339. What is a noted weakness in our schools?

340. How may this current history be taught?

341. What form of topical outline is to be used?

342. What division of this study is sadly neglected?

343. How should the subject be taught?

344. What especial form is to be used in the recitation?

345. How may the interest of the pupils be increased?

346. How often should a recitation be held?

347. What are useful auxiliaries to these studies?

348. What is it necessary that the pupil should know?

349. What is the highest form of history teaching?

350. How has a knowledge of prehistoric people been obtained?

351. What may be said of the importance of the study?

PENMANSHIP.

352. What should be the pupil's position while writing?

353. When should instruction in writing be given to the pupil?

354. How may pupils be taught to practice writing?

355. How is penmanship to be taught?

356. Should a manual be used by the teacher?

357. How has penmanship been taught?

358. What drills may be given by the teacher?

359. By what means are primary children to be taught?

360. How can the pupils be interested in writing?
361. What division of this subject is neglected?
362. What aid may be used in writing?
363. What may be said of movement exercises?

DRAWING.

364. What are the uses of drawing?
365. What does industrial drawing represent?
366. To what will this lead?
367. How is drawing to be taught?
368. What are the benefits claimed for industrial drawing?
369. Can all pupils be taught to draw?
370. What should be the length of a recitation in drawing?
371. What general law governs instruction in this subject?
372. How is drawing usually taught?
373. Can such instruction be given in the common schools?

DISCIPLINE AND MORAL TRAINING.

374. What is the purpose of discipline in a school?
375. What should be the first aim of a teacher in managing a school?
376. What is the chief object of school government?
377. State the advantages and disadvantages of a self-supporting system in school government.
378. State this opinion in a "nut shell."

379. What is the secret of school government?

380. What great principle lies in securing government?

381. Should the teacher act the petty tyrant?

382. What principle of conduct is prominent in children?

383. What are the external conditions of good discipline?

384. How is discipline secured with little children?

385. Should the teacher threaten in order to secure obedience?

386. Should the teacher have a set of rules?

387. What are the objections to the "self-reporting" system of government?

388. What effect has "appearance" upon securing discipline?

389. How would you act in case a boy refused to recite?

390. What other illustrations may be given?

391. What principle on the part of the teacher is an aid in securing government?

392. How may a bad boy be controlled?

393. What other influence has an effect upon the government of the school?

394. What line of conduct is to be avoided by the teacher?

395. Name another valuable adjunct to discipline?

396. How is the discipline of a school impeded?

397. What *fact* should be fully impressed upon the teacher?

398. How is discipline aided by tact in "seating"?

399. How may the teacher gain the assistance of his pupils?

400. What should be the discipline of the first day of school?

401. Of what should the teacher have a thorough knowledge?

402. What object is to be secured by discipline?

403. Which psychological *fact* is to be learned by the teacher?

404. What is one reason of "poor" government in schools?

405. Should the teacher have "pets"?

406. What are the "chronic diseases" of the school-room?

407. Mention ten *good* rules for losing control of a school.

408. What are *excellent* rules for spoiling pupils?

409. How is indolence in pupils to be cured?

410. What do you do to prevent tardiness?

411. What means are best to secure a full, prompt, and regular attendance?

412. What is considered a proper punishment for tardiness?

413. How may the pupil be interested?

414. How are stubborn children to be treated?

415. What knowledge is of the most use to the teacher in these cases?

416. What is a good motto in the management of a school?

417. Who object to the discipline exercised by the teacher?

418. What authority has the teacher in matters of organization and discipline?

419. What is the whole principle of school government?

420. What are the principal causes of disorders in schools?

421. What are the objects of school punishments?

422. Should corporal punishment be inflicted in the school-room?

423. How should the teacher punish?

424. When is the teacher amenable to the law of the State for the punishment of a pupil?

425. Should children be corrected constantly?

426. How is the bad boy to be treated?

427. What are the chief means by which the necessity of punishment may be prevented in a school?

428. Write a short essay on school punishments, discussing the objects of punishment; the principles regulating it; proper and improper modes.

429. What moral training should the teacher give?

430. How is moral training frequently interrupted?

431. What is the great source of moral training in our schools?

ATTENTION.

432. What is attention? What of its importance in education?

433. What are the means for securing attention?

434. How is attention to be retained?

435. What devices may be used in securing attention?

436. How may the teacher gain this control?

437. What relation does teaching power bear to the subject?

438. How may the teacher expect to secure attention?

439. How would you act to gain the attention of your pupils?

440. How can you fail in securing attention?

441. What is the "highest art" of the teacher?

442. Can the attention of *every* pupil be gained?

443. What general rules may be given for the government of a district school?

MISCELLANEOUS.

444. How should pupils be treated at the beginning of their school experience?

445. What are the preliminaries of the first day of school?

446. What should be the teacher's line of conduct when a stranger to the community?

447. What is the teacher to especially remember?

448. Of what should the opening exercises consist?

449. What are the principal features of a good school programme?

450. What are the advantages of a programme?

451. What is to be noted in preparing the programme?

452. Give the three principal objects of recitation.

453. What are the essentials of a recitation?

454. What is the purpose of the recitation?

455. What is one "crying evil" of this subject?

456. What expedients have been resorted to by teachers?

457. What plan should be adopted by the teacher?

458. Are uniformly perfect recitations desirable?

459. Should a teacher make special preparation for each recitation?

460. Should the teacher have a "plan" for each recitation?

461. Should a teacher confine himself to the text-book during the recitation?

462. Should the pupils bring their text-books to the class?

463. What are faulty questions?

464. What *kind* of questions should the teacher use?

465. What advantages are secured by the promiscuous method of calling upon pupils to recite?

466. Name the advantages and the disadvantages of concert recitations.

467. What are the benefits of the "individual method"?

468. What "recitation signals" may be given?

469. What is a remedy for whispering?

470. Is it a benefit to have a "whisperless" school?

471. How can the pupil be prevented from wanting to whisper?

472. What other "means" may be used?

473. What wide distinction should the teacher make?

474. What is the reason of whispering?

475. What effect has the teacher's method of instruction upon this evil?

476. Is the "no recess" plan advisable?

477. What are the "Seven Laws of Teaching"?

478. Should "Friday afternoon" exercises be given?

479. How may music be taught in the school?

480. Can music always be taught in the school?

481. How should music be taught?

482. What is your plan of dismissing school?

483. What are the conditions of successful teaching as regards the teacher?

484. What are the effects of the teacher's habits?

485. What moral qualities should the teacher strive to cultivate in his pupils? Why?

486. How are these qualities to be cultivated?

487. Should book-keeping be taught in schools?

488. How can the subject be taught?

489. What diversions may be used in the school-room?

490. What is an exhibition?

491. What is a valuable substitute for it?

492. How far should a pupil be assisted in the preparation of his lesson?

493. Should the teacher accept presents?

494. What may be said of industrial training?

495. What is the purpose of an examination?

496. What are some of the evils common to our country schools?

497. Should prizes be given in the school-room?

498. What are incentives to study?

499. What may be said of the relation of director and teacher?

500. How else may this relation be regarded?

MANUAL TRAINING.

501. Define Manual Training.

502. What are its purposes?

503. By what results has its adoption as a part of the school system been followed?

504. How does a manual-training school differ from a grammar school or a high school?

505. What instruction should be given?

506. Is such instruction growing in favor?

ANSWERS.

"*Education is at Home a Friend, Abroad an Introduction, in Solitude a Solace, in Society an Ornament.*"

THEORY AND PRACTICE OF TEACHING.

1. "How to induce the pupil to undertake and go through with a course of exertion, in its result good and even agreeable, but immediately and in itself irksome."—*Alexander Hamilton.*

2. "Education is the generation of Power."—*Pestalozzi.*

"Education is the culture which each generation purposely gives to those who are to be its successors in order to gratify them for at least keeping up, and, if possible, for raising, the improvement which has been attained."—*John Stuart Mill.*

"Education is developing in due order and proportion whatever is good and desirable in human nature."—*Hart.*

"Education is the harmonious and equable evolution of the human powers."—*Prussian Idea.*

"Education as an art consists in selecting and applying the means used for imparting instruction and culture."—*Wickersham.*

"Education embraces the culture of the whole man with all his faculties."—*Anon.*

"The end of Education is to render the individual, as much as possible, an instrument of happiness to himself, and, next, to other beings."—*James Mill.*

"How to make the most of one's self, is not this the purpose and problem of Education? Education in its broadest sense means development. It is the evolution of every human power."—*Baldwin.*

"The object of Education is to produce a well-balanced, many-sidedness of interest."—*Anon.*

"The true objective point in Education is the development and culture of the mind."—*Kellogg.*

"The aim of Education is morality."—*Herbart.*

"Education as a science comprehends the laws of the physical and mental constitution of man, and its relations to those means by which he can receive instruction and culture."—*Anon.*

"Education is confined to the efforts made of set purpose, to train men in a particular way; the efforts of the grown-up part of the community to inform the intellect and mould the character of the young; and more especially to the labors of professional educators or schoolmasters."—*Chambers' Encyclopedia.*

"Moral culture is pre-eminently the aim of all Education."
—*Fichte.*

"Education, in its true sense, seems to be a full, perfect discipline not only of the mental and moral powers, but of the physical as well."—*Raab.*

"The term Education is derived immediately from the Latin word 'educare' (to bring up or to instruct) from the root 'educere' (to lead forth, or to draw out). This literal rendering but imperfectly represents the meaning that now attaches to the word. It not only means to draw out, but it includes the appliances and agencies necessary for the development of a human being."—*Johonnot.*

"Education, in the most extensive sense of the word, may comprehend every preparation that is made in our youth for the sequel of our lives."—*Paley.*

"To learn how to observe and how to distinguish things correctly is the greater part of Education."—*Asa Gray.*

3. Pestalozzi, Frœbel, Jacotot, Dr. Arnold, Frederick Barnard, Henry Barnard, Horace Mann, Adolph Diesterweg, Louis Agassiz, Herbert Spencer, Thomas H. Huxley, Joseph Payne, and many other noted names of our own time.

4. 1. Activity is the law of childhood. Accustom the child to do —educate the hand. 2. Cultivate the faculties in their natural order. First form the mind, and then furnish it. 3. Begin with the senses, and never tell a child what he can discover for himself. 4. Reduce the subject to its elements. One difficulty at a time is enough for a child. 5. Proceed step by step; be thorough. 6. Let every lesson have a point. 7. Develop the idea, then give the term. 8. Proceed from the known to the unknown. 9. Synthesis, then analysis; not the order of the subject, but the order of nature.

5. All great educators, from Socrates and Plato to the present, have enunciated the following: 1. The individual freedom of teacher and pupil. 2. The cultivation of sense-perception as the foundation of mental growth. 3. The study of the laws of mental growth, as developed in the child, the first qualification of the teacher for his high office. 4. The true educational spirit never asserts, but inquires. 5. Induction precedes deduction. There must be an *in-leading* before there can be an *out-leading* or *drawing-out* process.

6. It is that which is based upon the great principle of *directing* instead of *repressing* the activity of childhood. The general principles of this *normal* instruction have been applied in many public

schools for years past, but to Col. Francis W. Parker belongs the credit of having systematized and perfected this method. The primary schools of the country, in all intelligent communities, have been revolutionized by a process that is almost impossible to describe succinctly and yet briefly. Additionally, it is quite as difficult to predict the results that will ensue, in the course of years, from this "new education." The traditional order of studies—the Alphabet, Spelling, Reading, Writing—has been completely reversed, and the new order is Writing, Reading, Spelling. Instead of learning to read and to spell through the medium of spelling, children learn to read and to spell through the medium of writing. The alphabet, which formerly occupied the first three months of a child's school life, is left to take care of itself. Drawing and music, the "extras" of the boarding-school, institute, and seminary, are made fundamental exercises in this new primary school. Composition, which as a study was formerly postponed to the High School course, is begun in the first year of school life. Spelling, which was once the "grand gymnastic" of the schools for the first seven years, is now reduced to a subordinate position. It is regarded as sufficient for a child to be able to spell all the words he can use. To learn more is thought to be a waste of time, for the ability to spell other words is expected to come with the knowledge of the words themselves, and the knowledge of the words will come with more extensive reading. Thus reading is made the means of teaching spelling, instead of using spelling, as formerly, as a preparation for reading.

7. The present result seems to set in the direction of a knowledge of *things* rather than of *words;* and in addition to the "three R's"* which were once supposed to constitute the sum and substance of elementary knowledge, we have three other things to teach—to observe closely, to think justly, and to express thought correctly.

8. The narration of the success or the failure, the causes and the effects of the various educational systems and efforts which have characterized the past.

9. To develop mind, body, and soul; to make men and women of the children committed to our care, to the end that they may become good citizens.

10. His knowledge should be adequate to accomplish the object sought to be attained. His character should be such as to make him the example of the children committed to his care, and, additionally, he should be largely possessed of that very uncommon commodity, common sense. The teacher who does not enter the business as a life-work, rather than a "makeshift," is unfit for the profession.

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* Reading, 'Riting, 'Rithmetic.

11. No. It is popularly believed that all professions, except one, must be learned by study and practice in their own particular lines, but that teaching, the most important of all professions, does not require any special training. A greater mistake could not be made. A knowledge of geography, arithmetic, and the spelling book will *not* make a successful teacher, and the claim that any one with a good general education, the graduates of High Schools, Academies, and Colleges, are competent to teach in the public schools, and should be licensed as such, is no more true of education than of law or medicine. A good general education is of inestimable value as a foundation for any pursuit, but that it should take the place of special or professional training is as false in theory as it is pernicious in practice.

12. The skilful application of rules and methods, deduced from science and from intelligent observation and experiment. "Teaching is a *process* controlled by *principles* aiming at *products*. The Process of teaching is the training of the growing mind. The Product aimed at by this process is the pleasure-giving power of unselfish self-improvement. The Principles controlling this process make it systematic."

13. It embraces the whole science of education. It investigates the susceptibilities and powers of the mind, and the methods by which they may be trained and developed into activity, strength, and harmony.

14. It is the way of performing an act. Teaching is a mental act, or that act which consists in presenting objects and subjects to a mind, so as to occasion the activity which produces knowledge and culture.

15. Six. The Text-Book, Oral, Socratic, Topical, Discussion, and Lecture. The two general divisions are naturally the Oral and Written. Oral teaching calls into exercise the active powers of the mind, while written teaching addresses itself to the passive powers only.

16. Socrates taught by questioning. His aim was to prepare the mind of his pupils to receive the truth, by proving to them their ignorance, and then creating a curiosity, a desire, a thirst for real knowledge.

17. No one who has taught can be absolutely ignorant of mental philosophy. For though he had never studied this science from books, the operations of his own mind would naturally be observed when he came in contact with other minds. The farmer studies the character of the soil, the chemist carefully analyzes the ore, and the business man ponders over the probabilities of gain or loss; but the

minds of children are more deserving of study than soil, or ore, or trade. They generally receive less.

18. *A thorough knowledge of human nature.* This, combined with tact, talent, firmness, and executive ability, forms the perfect teacher. The characteristics of a successful school are *Order,* industry, punctuality, propriety of conduct, reciprocal esteem of teacher, pupil, and parent, strict honesty, and the confidence it inspires. Secure these, and other desirable characteristics will follow in harmony with them.

19. The faculties, or powers of the mind, are divided by metaphysicians into three classes: The intellectual faculties, the affections, and the will, or, the phenomena of knowing, the phenomena of feeling, and the phenomena of willing. Those intellectual faculties which are first developed are first to decay; as, for instance, the faculty of perception, so keen in the child, so dull in the old man; and the reasoning faculty retained in extreme old age is far removed from infancy and childhood, and is developed slowly and painfully by average pupils in advanced grades. Between perception and reasoning lie memory, imagination, conception, judgment.

20. Obtain the power of a rapid *perception* of your surroundings. The completion of a vivid perception is the beginning of memory. For instance, walk rapidly by a shop window and see how many objects you can recall, the first time, the second, the third. Dictate an interesting story or description and have pupils instantly write it out from memory, or relate it to you orally. Repeat a list of words that have no connection, and have them repeated in the same order. These two instruct the ear. Take different coins and drop them upon the desk, at the same time naming them. Repeat the dropping, and have the pupils, with their eyes shut, recall the pieces merely by sound.

21. The best. Our public schools may be regarded as the index of our civilization, and "as the teacher is, so is the school." The stream does not rise higher than the fountain. It is an old and wise saying of Alexander Pope that "Education forms the common mind; just as the twig is bent, the tree's inclined." If this is true, then the necessity of employing in our primary schools the most skilful teachers, of large experience, is apparent. A good teacher is cheap at any price, and it is better to have no school than a poor one.

22. It is to be hoped that the effort to abolish the distinction between the salaries of grammar and primary teachers now being made in some of our larger cities will be successful. It is the relic of a barbarous time; there is nothing to be said in its favor. Thanks to Frœbel that he taught the value of those who teach little children. "The post of difficulty is in the primary department."—*Phelps.* The labor of the grammar teachers is doubled for want of good

teaching in the primary school. The primary teacher should be paid as much as any other teacher in the school excepting alone the principal. And such recognition of her worth is already granted in many different localities.

23. Familiarizing children, by the aid of objects, with solids, surfaces, and outlines. With the lessons on form are associated lessons on color, and from the object, perception, memory, comparison, and language are cultivated. With these, printing, writing, and drawing are used in exercising both hand and eye, and music and calisthenics to enliven the routine of instruction.

24. They may be given to young children by allowing them to bring to the school-room pieces of wood and bark, and specimens of rocks, shells, etc., and having them tell what they know of them and the habits of birds and insects, supplemented by oral instruction from the teacher. Studies in elementary Botany—very useful in training the powers of observation—should be given only in the early autumn.

25. The teacher's work is instruction. The pupil's work is learning. The pupil must obey. Both teacher and pupils must do the best they can. The teacher must understand his own rights as well as those of his pupils.

26. Teaching is communicating to another the knowledge of that of which he was before ignorant. It is educating. Talking is familiar or unrestrained conversation. Now, to communicate knowledge, or to educate, some conversation is necessary. And the conversational plan of teaching is the proper one for quite young people. But teaching differs from talking in that the former is not unrestrained conversation. In teaching, conversation has a special aim, and that is to hold the minds of the pupils closely to the subject of the lesson, resolutely refusing to entertain irrelevant thoughts, or give expression to them. In talking, restraint is kept at the *minimum*. One is work; the other, play.

27. The English word teach is from an Anglo-Saxon word meaning *to show*, and both the Greek *deiknumi* and the Latin *docere* are from a Sanskrit root meaning *to show*. Etymologically, *teaching* without *showing* is impossible, but teaching is not necessarily telling. The educator who looks only to intellectual culture, often at the expense of bodily and moral culture; who substitutes cramming for training, memorizing for thinking, is unfit for his business, and should be excluded from the public schools. The child or man may be an encyclopedia of knowledge and yet remain an infant in all the essentials of manhood. Mental dyspepsia is very common, and mental dyspeptics are found in every avenue of public and private affairs.

28. The perceptive. In the primary grade, children deal only with facts, and facts are learned by perception. When the pupils have advanced in the intermediate grades to that point where they begin to generalize, and to study first principles, then give the memory its proper share of work; however, in primary grade we want but little memorizing—the less the better. We should spend one golden year in teaching the children how to learn rather than in converting their memories into mental scrap-books. To develop the faculties of the soul, the reason, the senses, and the bodily strength, is the object of primary instruction.

READING.

29. It is obtaining thought by means of written or printed words arranged in a sentence or sentences. Thought may be defined as ideas in relation. Ideas are either sense products or derivations from sense products. We get thought, first, by seeing objects in their relations; second, by thinking of things in their relations without their presence; third, by seeing pictures or drawings of objects in their relations; and, fourth, by language. We get thought by language in two ways. First, by the spoken language, and, second, by the written or printed language.

30. By giving them something to talk about, and then insist that they shall express their thoughts in good language. An *occasional* exercise in talking will not suffice. The teacher, every day, should read something of interest to the class, and then require the pupils to reproduce the subject-matter in their own words, or give the class a few minutes for silent reading, and then require them to reproduce the thought of the writer in their own language, either spoken or written.

31. To be able to interpret readily and express clearly the thoughts and feelings of an author.

32. The securing of proper oral expression of written language, and the development of the power of grasping thought. Some of the indispensable qualities of *good* reading are precision of articulation, paying proper attention to the pauses, the correct inflection, accent, emphasis, and the adoption, as far as possible, of the ordinary colloquial tone of voice.

33. Teachers sometimes instruct pupils to stop and count "one" at a comma, "one, two," at a semicolon, and so on. A slight knowledge of punctuation suffices to show the absurdity of these old rules. The fact is, that in some of the most common cases in which a comma is necessary, a speaker would make no pause. For example, "No, sir," "Thank you, sir." This leads to a mechanical, unnatural style of reading. First attend to the reading of sentences,

and lead the pupils to see how the pauses aid in understanding the meaning. Do not teach reading as if attention to "pauses" were the chief object to be attained. Reciting definitions of pauses is not only useless, but it leads to a great waste of time. Teach the use of the pauses in the lesson, instead of the definition of them. A few teachers pay no attention to the explanation of the words, but turn their attention almost entirely to the names and the pronunciation, important points, to be sure, but by no means the life-giving elements of good reading.

34. Ten. The Word Method, Object Method, Phonic Method, Phonotypic Method, Phonetic Method, Look-and-say Method, Word-Building Method, Sentence Method, Drawing Method, and the A B C or Alphabetic Method.

35. Some of them are very unphilosophical, and leave no cause for surprise that so many children flounder at the very threshold of knowledge, the very place that should be most attractive. In the *word method* we begin by teaching words, leading the children to recognize them as wholes. This method is now used extensively; it was the method used by the race in developing the language.

36. The children's attention is first directed to some object with which they are familiar by sight, name, and use. The teacher shows the object to his pupils, and the name is given by them. If they cannot give the name the teacher tells them. He then presents a picture of the object, or makes a drawing of it upon the board; then the name is plainly written under the drawing. The pupils are now taught to distinguish from one another the object, the picture of it, and the word representing it.

37. *First*—For mastering the word by the eye. *Second*—For recognizing the word in the sign, and for acquiring practical acquaintance with the number of letters and syllables. *Third*—For its suitability to the circumstances of common schools.

38. Its purpose is to begin with words of one letter, as A, I, O, and gradually form new words by prefixing or affixing single letters. The child is taught first to pronounce the word, then the letters that form it. Separate letters of the alphabet and spelling are taught by asking questions similar to the following:

"What letter is placed after *o* to form *on?*"

"What letter after *on* to form *one?*"

"What letter before *one* to form *lone?*"

"What letter before *lone* to form *alone?*"

39. No. This is in violation of the fundamental laws of teaching. It attempts to compel the child to do two things at the same time, and to do both in an unnatural manner, viz.: to learn reading and spelling simultaneously, and reading through spelling. Reading has

to deal with sounds and signs of thoughts. Spelling rests on a habit of the age, which is best acquired by writing. In attempting to teach reading through spelling the effort distracts the attention from the thought; reading furnishes facilities for teaching spelling; but spelling does not furnish a suitable means for teaching reading. If spelling is permitted, a love of reading is not enkindled, and good readers are not produced.

40. "Let me caution you against placing dependence upon rules of inflection of the voice given in reading books. All that you need is to fully understand the thought; when you have the thought fully, you will know all about inflection of the voice. If a person cannot translate what he reads into his own language, he most assuredly does not understand it. If you cannot bring out in your own language the full meaning of the lesson, you are not the one to teach, and you should either adopt some other vocation, or go through a rigid course of reading."—*E. V. De Graff.*

41. By this process we are enabled to conceive definite ideals and sharply defined images of the word scenes we are depicting. This makes our description vivid, or our narration vivacious and wide-awake. It moves to tears in pathos, or to laughter in comedy. It makes the flesh thrill in tragedy, and lack of it enables us to sit unmoved through the recitation of the most affecting language—that is, language having all the requisites for strong emotional feeling.

42. Take the example:—

> "And the nights shall be filled with music,
> And the cares that infest the day
> Shall fold their tents, like the Arabs,
> And as silently steal away."—*Longfellow.*

How shall the nights be filled? What is it that *infests* the day? What will the "cares" do? Who shall fold their tents? How? What will become of the "cares"? How will they "steal away"? Who will steal away? And thus by a series of questions graded according to the sense and difficulty of the work—if sufficiently advanced, ask about the author, the name of the selection, literary worth, and beauty—you can interest any class and draw out the most artistic pictures, adding wonderfully to the vividness of their reading.

43. None. The art of reading has been defined as that embodying every accomplishment, both of voice and action, necessary to appropriate expression; and elocution as an artistic copy of intelligent, significant, and expressive speech as employed in our communication with each other, either in the energized enforcement of deliberate argument, the sympathetic and endearing expressions of affectionate intercourse, the bursts of passion, or the ordinary statement of facts and circumstances which concern our business or other relations.

44. The reason is plain, for very young pupils cannot investigate books like older pupils, and the teacher must not only give more instruction (information), but explain the text and contents of the books to the pupils. The teacher should make the pupils do the talking as far as possible.

45. That the *minimum* on the part of the teacher, and the *maximum* on the part of the pupil, be the rule and not the exception.

46. Good questioning is essential. Without it the teacher does not know what his pupils know, what they receive or what they understand. The eager inquiries of young children and of thoughtful pupils may be answered to advantage, because the very question indicates that the mind is in a receptive state, and its tentacles—metaphorically speaking—are all thrust out, quivering with expectancy to grasp a morsel of food. It is also the duty of the teacher to excite the mental appetite; to display tempting viands in order to stimulate the intellectual processes; to flavor the solid dishes of a dull lesson; and so induce his pupils to love their work.

47. *Tentative, Catechetical, Socratic,* and *Examination.* The first is employed at the introduction of a topic in order to discover what is known. It also makes apparent to the children their needs, and prepares them to receive. The second has for its office the duty of making children understand. It is a kind of cross-questioning after an exhaustive fashion, in which the teacher and pupil find how far a thing is not understood; and in which the questions are so ordered as to place matters clearly, and get that activity of mind by which the subject will be thoroughly apprehended. It is the most effective of the teacher's gifts.

48. Its purpose is the development of some subject in the mind of the pupil as the result of a series of inferences from something that he already knows. It starts with a question which the pupil cannot answer, and then leads him step by step from some known fact till he discovers the answer for himself.

49. At the end of a lesson, to bring out its broad features and most essential parts, and to bring these together as a whole. A good rule in all questioning is, to vary the forms, so that the child may attend to the sense rather than to the words.

50. "Leading questions" are useful in recitation when it is desirable to have a pupil commit himself when he refuses, purposely or otherwise, to come to the point. But they are usually objectionable: First, because they provoke very little effort on the part of the pupil as to thought, and none at all in the expression of it. If there is no effort required in the recitation, no effort will be made for it. Second, because the teacher has to do all the reciting, and it is not his business to recite.

51. It is the complement of questioning. Some things must be told. There are facts, which, if not known, no questioning can reveal; and there are ideas which the child might discover, but which would not repay the labor. Hence there will always be a demand for instances, explanations, descriptions, and analogies. In these there may be sometimes lengthened statement, the aim being to give power of attention, of following what is said, and of retaining it. But this practice ought to be joined to that of requiring the reproduction of the statement either orally or on paper. As a rule, a stream of talk must not be indulged. The old comparison of a child's mind to a narrow-necked phial should be remembered. Poured in drop by drop, little by little, it may be filled, when a continued stream would run to waste.

52. It should be able to read easy words of two syllables at sight, and should be able to write plainly with slate or lead pencil. It should be able to count to one hundred, and know all the combinations of numbers to one hundred. It should also have a small stock of small accomplishments, such as telling the time, the day of the week, month of the year, name of county, name of township, name of the President, Governor of the State, grade of its school, be able to make "small change," etc.

53. Perhaps my idea of "unconscious tuition" can best be illustrated. One gloomy, rainy day, at the noon recess, one of my pupils, a bright, precocious child about eleven, said to me: "Tell us something to play." I replied: "Suppose we play school, and I will be your scholar." "And when I am teacher may I do as you do?" This was a poser, but I said "yes."

So school began, after the superintendent, writing-teacher, and music-teacher had been selected in high glee. Soon after school had begun, the superintendent came in, nodded to the teacher, took a chair, tipped it back, crossed his legs, stroked his beard, and quietly observed the state of affairs, taking out a small book after a while and making notes with perfect solemnity. The writing- and music-teachers were faithfully imitated, sometimes with cruel exactness. But the teacher of the school was simply abominable. I could hear the tones of my own voice, could recognize my peculiarities and movement. There stood my tormentor, doing just as I did, with an air of defiance, unpropitious and implacable, the tones of her voice having a peculiarly grating quality, an edge on every remark,—offensive ones not being the exception; a caustic something in every utterance, and an air of expecting rebellion. All this tartness and irritability seemed so unnecessary to an observer as to be positively amusing. So my pupils taught me unconsciously what I had taught them in a like manner—the weakness of my own character. Since then, I have known myself to sit in one of the children's desks after

school and wonder how I would like to be a child again and have a teacher just like myself. So far, it has never seemed an alluring prospect.—*A genuine examination paper.*

54. The mental grade of the reading class. "Of all knowledge and mental training, reading is in our day the principal means, and reading aloud intelligently the unmistakable, if not the only, sign." —*Richard Grant White.*

55. Yes. He should be familiar with the pronunciation of every word, including its literal and received meaning. He should give the pupil the history of the author and some of his prominent characteristics,—this will add to the interest; should awaken thought in the mind of the pupils,—this will secure interest. It matters not how simple the lesson may be, previous preparation is indispensable. Previous study will add new power and generate better methods, by means of which success will be insured. The teacher will become independent, self-reliant, and a "law unto himself." *As a requisite essential to success, however, the teacher of reading should be a good reader.*

56. If you have a fault, attend to it and overcome it by practice. Much time must be taken in correcting bad habits of reading, but you must take the time. And whatever you do, be sure to teach the pupils to do it in the right way. If the teacher wishes to succeed, he must learn how intonation and articulation are taught. Before he can teach it, he must learn it, and it can only be acquired through study. Then, if your pupils have unnatural tones, make them repeat after you sentences and whole passages. This will insure correct pronunciation, distinctness of utterance and expression.

57. Faulty pronunciation. More errors are made in orthoëpy than is generally supposed. Test yourself with such words as *Arab, orthoëpy, vagary, idea, syncrasy, discipline, advertisement, interesting, withe, awful, preferable, Arabian, influence (?), design, rise* (noun), and *hygiene*, and then consult the dictionary to verify your accent and syllabication.

58. No; but we would insist that the pupils understand the meaning of the words used. A definition is a general truth, a deduction; children should be taught primary truths, and, as their reason develops, deduce the definitions, rules, and principles. Develop correct ideas; then give definitions. A great many teachers have been amazed, shocked, and, in all probability, almost disgusted, at the absurd or ludicrous answers given by pupils to those required book definitions;—the result of an attempt to develop logical reasoning in an immature mind.

59. The true teacher will have no particular set or routine method. His main object should be to secure distinct articulation; cultivate

natural tones and delivery ; require pupils to take a proper position ; cultivate their powers of perception and language by questions on the subject-matter of the lesson ; teach use of principal punctuation marks ; exercise the class in spelling, pronouncing, and defining words of the lesson. He should occasionally give a drill in concert reading, the pupils reading a sentence after the teacher or some member of the class ; the pronunciation of difficult words, and the explanation of new points in the next lesson.

60. The teacher may, in the course of his reading, find an article or a story which he would like to have his pupils enjoy with him. This may serve two purposes. Perhaps he may have in his school a pupil who is addicted to some bad habit ; or a spirit of insubordination or discontent or laziness may be creeping into the school-room ; or he may wish to inspire the pupi's with nobler aspirations and to prompt better impulses. In any of these or similar cases, the reading of some article may produce the desired effect. Sometimes it may be well to have one of the pupils bring in something he has found and let him read it to the school, and let him comment on it. After such an article has been read, it may be well to have the entire school engage in a general talk about it. Or it may be advisable to say nothing. leaving each one to draw from it what benefit he can.

61. The memorizing of literary gems. This can be done in the primary department or the primary classes of any school. A knowledge of the author, his life, or his labors is of secondary consideration at first. Engravings of noted authors can be obtained for a trifling sum of money—cut from catalogues at no cost whatever—and tacked or pasted upon some convenient piece of the wall of the school-room. In the intermediate grades this instruction can be advanced by the teacher placing upon the blackboard, daily for a few weeks, favorite extracts and familiar quotations from noted authors, giving the dates of their birth and death, supplemented by some information relative to their lives, etc. The pupil is then ready to commence the study in some short course of literature, there being some two or three excellent manuals published that are admirably adapted for this purpose. Larger and more exhaustive treatises follow as a matter of course.

62. When the third reader is reached, instructions in phonics and diacritical marks should be given for the purpose of giving command of the dictionary. Require the children to face the class while reading. You cannot expect a child to read to a blank wall with any degree of animation. He should read in the spirit of "I believe this, and I am going to make those fellows down there believe it."

63. Practically, and not vaguely and theoretically. Probably no school exercise is more profitable, when properly conducted, than a

drill in the *right* use of words. To know just what word to use to express the exact shade of meaning intended is no mean accomplishment; and the person who is not reasonably familiar with words and their uses is very liable to make very ludicrous and embarrassing mistakes.

64. It comes naturally in connection with the reading lessons. It is here more than anywhere else that the acquaintance of unfamiliar words is made, and that occasions arise for showing the various shades of meaning and the peculiar uses of many words given in the dictionaries as synonymous terms. It is necessary, then, to familiarize pupils with the use of the dictionary in finding the meaning and pronunciation of words; but these, unless supplemented by a careful drill from the teacher, will be found strangely misleading.

65. Such as have actually occurred in the school-room. For instance:

Tandem = One behind another: "The pupils sit tandem in school."

Akimbo = With a crook: "I saw a dog with an akimbo in his tail."

Athletic = Strong: "The vinegar was too athletic to be used."

Frantic = Wild: "I picked a bouquet of frantic flowers."

Composure = Calmness: "The composure of the day was remarkable."

66. By giving an original illustration of this principle, rule, or usage. It is hardly necessary to carry out the old suggestion of having pupils underline, with a light pencil mark, the designated number of unfamiliar words and expressions in the day's reading, as it is a habit that detracts from neatness, but instead place upon the blackboard the required list. Some of the progressive readers of the day contain many selected sentences from the lesson, with the words in italics whose synonyms are required.

67. It is an accurate test as to whether the definition found by the pupil is a suitable one for the place, and, if so, whether it is the *best* one for the place. It teaches the pupil, therefore, to exercise his judgment in the choice of words to express a given thought or shade of meaning. One pupil has found a definition which does not express the full force of the word, a second has found the definition of the same word when used in an entirely different sense, while a third may have selected a definition which expresses the thought in a stronger sense than the author intended.

68. To assist the studies of children by having them read the newspapers in public schools, at stated hours, and under the supervision of teachers, is not a new idea. It is on trial in different parts of the country, and has found a warm, practical advocate in many superintendents.

69. By having marked on the blackboard a special space headed "News Bulletin." If access is had to daily papers, the bulletin should indicate this. In places "far remote" where the weekly is the only news visitor, a summary of the week's events should be placed under the "Bulletin" on Monday morning, by the teacher, to which the pupil's attention should be called, and supplemental information given by the teacher. One-half of the school children in the United States, to-day, do not know the name of the Vice-President.

70. To instruction in general information. A knowledge of common statistical, geographical, and historical facts, with some of the more simple statements that can readily be adduced from the sciences, arousing the child's interest, cultivating habits of research, culminating in accuracy of scholarship, and giving him that stock of outside-of-the-text-book information every educated boy and girl should possess. In several of the States of the Mississippi Valley, this is done by placing weekly upon the blackboard a set of five or ten so-called "queer queries."

71. In Boston, the difference between their use and disuse became very apparent. After they were discontinued, the universal testimony was to the effect that the standard of good reading did not reach its former excellence. Their use has been abused, however, in many schools, by incompetent instructors.

72. Mechanical, intelligent, and intellectual reading. The latter is not only comprehending clearly and definitely the author's meaning, but it is also a ready recognition of the relation of that meaning, a prompt assimilation of it, and a subsequent growth. This is the kind of reading that reigns in the student's "den" and the philosopher's study.

73. To a very small extent only, but as a quality of the highest standard of reading, known as elocution, it is deserving of more notice. The teacher may furnish an ordinary illustration by alternating in reading with them some of the common dialogues to be found in most readers. Elocution as a special study should be taught as a specialty. It is an art well worth the undivided attention of any teacher. There is probably no study requiring a more complicated mental action than reading aloud, so as to impart all the emotional accessories of the sense; and no other one tends more rapidly toward developing and refining the sensibilities.

74. Those which exercise and tend to improve the pupil's powers in giving the various forms of inflection, emphasis, and pitch; drills in correct articulation and enunciation, as in

> "Amidst the mists,
> And coldest frosts," etc.

Rapidity of tone and correctness in "Pretty Pluma placed a pie

upon a pile of plates. Where is the pretty pewter platter Pluma placed the pie upon?"

Closeness of tone can be developed by having the pupil repeat in concert and singly, some exercise similar to the following: "Fanny Finch fried fourteen floundering frogs for Francis Fowler's father."

75. The mispronunciation of compound forms, where the sound of the vowel is changed from that of the single or simple word, as illustrated in *there* and *therefore; main* and *maintain; gain* and *again; child* and *children; clean* and *cleanliness*, and in such arbitrary terms as "pretty," "bouquet," "depot," "buoy."

ARITHMETIC.

76. It should be to acquire practical skill and exact thinking, and for this reason the pupils should be required to bring the problems of the lesson into the class neatly solved and arranged for inspection, while their knowledge of the topic under consideration should be thoroughly tested by judicious questioning and by the solution of problems not embraced in the text.

77. It consists of training beginners from five to six years of age on combination of numbers, not exceeding ten, in addition, subtraction, multiplication, and division. Begin with counters, such as small blocks of wood, shells, corn, beans, or pebbles, and use them for two or three months, until the pupils can make the combinations without the aid of objects.*

78. Instruction should be given in decimals in connection with whole numbers, at least to the extent of adding and subtracting, and of multiplying and dividing them by whole numbers. Limit: First step, tenths; second, hundredths; third, thousandths. Give frequent drills in addition—the operation in which more mistakes are made than in any other.

79. In the second and third years, common fractions may be taught, limited mainly to halves, thirds, fourths, etc., to twelfths. Illustrate simple operations in the four rules by means of apples, crayons, or lines upon the blackboard. Use the blackboard yourself for the purpose of giving explanation or models of methods.

80. Those which all pupils should understand are the four rules—common and decimal fractions, the tables of weights and measures, and interest. The rest of the text-book may be omitted without much loss by all but high-school pupils.

81. Instil into their minds, first, the important fact that accuracy is vastly more necessary than rapidity. One hour a day is amply

* A valuable volume by Prof. Seeley, on the "Grube Method," is published by E. L. Kellogg & Co.

sufficient for this study. More dependence should be placed upon slate and blackboard drill in school, than upon problems to be worked at home. The pupils should be drilled at the boards, a new subject thoroughly explained to the class, and if the class is large, one-half may be engaged in slate work while the remainder are at the blackboard. Insist upon neat work, with some such arbitrary division as a brace or curved line separating the work of the pupils, an accurate solution, and a neatly-worded correct analysis of the problem.

82. Do not waste your time or that of the pupils upon them. They will do very well for the "puzzle department" of some literary medium. Additionally, it is well to remember that a considerable amount of that which passes in text-books under the name of arithmetic, such as circulating decimals and other mathematical curiosities, consists largely of school-master's exercises, of neither practical nor disciplinary value.

83. That most children know very little of the subject when they enter school, and, consequently, the first step should be taken with great care. After the child has been made thoroughly at home in the school-room, the teacher should ascertain by careful and repeated tests just what it knows of numbers. This examination should be made under the most favorable circumstances, and extend over a period of not less than two weeks.

84. Yes; the moral is so plain there can be no disputing it. Since twice as many pupils attend the primary schools as go to any other department, and about one-half of them go nowhere else, the primary schools deserve and demand the largest share of attention, and their efficiency should be raised to the highest standard of excellence, though it should be necessary to lessen some of the expenses of the other and higher schools.

85. The rule of notation, being simply the plan of procedure, will be taught in and through the process. Rules in arithmetic are only rationally taught by having the pupils solve problems under those rules, under the teacher's guidance, step by step.

86. (1) Distinct mental conceptions; (2) clear views of cause and effect; (3) certainty in the course of reasoning; (4) precision in language; (5) a thorough understanding of fractions; (6) rapidity in the solution of questions; (7) artifices for abridging labor; and (8) cultivation of memory.

87. The use of aliquot parts is not sufficiently treated in most schools, especially as regards the decimal division of U. S. money. Sixty-two and a half cents equal five-eighths of a dollar. Then what is the cost of 168 bushels of corn at 62½ cents a bushel? By rapid mental calculation, five-eights of 168 equals $105, the answer. Con-

sequently, what does 136 pounds of butter cost at $37\frac{1}{2}$ cents a pound? The product of $11\frac{1}{2}$ by $11\frac{1}{2}$ is easily ascertained from a knowledge of geometrical principles to be $132\frac{1}{4}$; that is $11\times12+\frac{1}{4}=132\frac{1}{4}$. These artifices are of invaluable use to teacher and pupil. They should also have memorized the product of whole numbers of the same kind to 25 times 25.

88. No words can convey a full appreciation of the importance of mental arithmetic. Only those who have experienced the transition from the old methods to the new, can fully realize the supreme value of this study. Indeed, it is generally believed that the method of mental arithmetic is the greatest improvement in modern education; and the world owes a debt of gratitude to Warren Colburn, its author, which it can never pay.

89. The former is used in reducing fractions to their lowest terms, and the solution of some practical questions, as, e.g., what is the least number of square blocks of granite that will cover a floor 7 ft. 8 in. by 10 ft. 4 in.? (Ans. 713.) The latter is of much use in changing fractions to the least common denominator, and in solving mechanical and astronomical questions.

90. There are two principles commonly used in Algebra which may be very profitably applied to arithmetic:

1. "If one of the quantities contains a factor not found in the other, it may be cancelled without affecting the common divisor."

Find the G. C. D. of 48 and 60.

48, 60—12 G. C. D.

It is evident at a glance that 5 is a factor of 60, but not of 48. Dropping the factor 5 from 60, the other factor, 12, is seen to be the G. C. D.

Find the G. C. D. of 70, 154, and 819.

70, 154, 819.

35, 77 Ans. 7 G. C. D.

Dropping the factor 2 from 70 and 154, 7 is seen to be a factor of 35 and 77. It is also a divisor of 819, and is the G. C. D. This method is simple; it saves time, and gives the pupil a drill in rapid mental calculation.

91. There are several solutions that can be given, but probably the following simple method can be used with good success. Taking any ordinary problem, as $\frac{4}{5}\div\frac{8}{4}$, or $1\div\frac{2}{3}$, explain to the class that inverting the divisor is simply a short method of reducing to a common denominator and comparing numerators, or dividing one numerator by another. For example: ($\frac{4}{5}\div\frac{8}{4}$. 20 = com. denom.) that is, $\frac{16}{20}\div\frac{10}{20}=\frac{16}{10}$ or $1\frac{6}{10}$. Using the same fractions, and inverting the divisor we obtain $\frac{4}{5}\times\frac{4}{3}=\frac{16}{15}=1\frac{1}{15}$.

92. *Long* division; because every step of the process can be put

before the learner in figures, while short division is a contracted method, and leaves nearly all the work, especially the multiplication and subtraction, to be done mentally.

93. *Decimal* fractions, so far as the system goes, because it is easier—being merely an extension to the right of the point of the notation system for whole numbers. Number classes should learn, however, the *practical use* of a few of the simplest common fractions, as ½, ¼, etc., before they get to any kind of fractions as *usually* given in arithmetics.

94. Mental arithmetic, as practically illustrated, is as follows: The teacher recites rapidly a series of mathematical perplexities in this way: "I had six apples; I took one away, added five, divided by two, squared them, gave away five, lost one, sold two, bought ten and ten and five and four and three, and lost seven, and divided them all with Kate and Jennie and Tom and Ned. How many did they have, and how many were left?" There is a pause of about thirty seconds, and then one calls out that he has it, and then another and another, till they all say they have solved the problem. Allowing a minute to elapse, one pupil is called upon for the answer, and then it is put to the vote of the school whether or not the answer is right.

95. There are tin and wooden measures, with a pail of water and a bushel of bran, ranged on the table before the class. The teacher holds up the smallest tin measure and asks what it is. Some say it is a quart, others declare it to be a pint. After some delay it is decided to be a gill. "Can any one spell it or write it on the board?" This is done, and the next step is to experiment with the measure. One of the girls fills it with water and makes a statement about it. "I have one gill of water." Having obtained a unit of measure, the next is taken, and the pint is considered by filling it with water by means of the gill measure, and counting the number of gills required to fill it. For dry measure, the bran is used instead.

96. By the blocks, the wet and dry measures, the rules and tapes, without once referring to a book. In point of fact, it does not appear advisable to use books at all, but to study numbers from objects, or by means of the board or stories of imaginary transactions from real life. The study of numbers is confined to the first four rules, simple fractions, and, perhaps, interest. This takes the pupil about half way through the grammar school, and it covers all that is required in ordinary business transactions. The tables, addition, multiplication, weights, etc., are in time all learned, but they are placed last, and not first.

97. The pupils are probably weak on the "tables," or in the

mere parrot-like recitation of formulas, but they display a degree of quickness, a readiness of memory, comprehension, and reasoning, that is remarkable. With shorter questions, involving two sums in one rapidly spoken sentence, the answers come in a volley from the class the instant the sentence is finished, showing that the mental processes have been just as rapid as the spoken words. Such are the "results" in many schools. As the majority of children leave school when about half way through the grammar grades, the question whether this objective teaching is fitting the boy for his probable position in life, or whether this is the best "schooling" for the poor man's child, can only be answered by the *facts* of future years.

98. The teacher writes a series of simple examples in addition on the board, and the whole school watch her with the keenest interest. Now for a grand competition in language, grammar, arithmetic, and imagination. As soon as the figures are set forth a dozen hands are "up." "Well, Jennie?" Jennie rises and says: "I was walking in the fields, and I met two butterflies, and then I saw two more, and that made four butterflies." "Good." The answer is put under the sum, and another child is called. "I had seven red roses, and a man gave me three white roses, and then I had ten roses." By this time the school has caught the spirit of the game. Forty hands are up, trying in almost frantic eagerness for a chance to bowl over one of the sums and tell a story. *Whispering is plenty.* One by one the sums are answered and the quaint stories told. Then all the upper figures of the sums are removed, and the lesson is changed to subtraction. Again the stories. "I had four red apples, and I gave two away, and then I had two apples," etc. Nearly every one mentions the color of the article described. They take their subjects from out-of-doors, as if all their thoughts are of the woods, the fields, the street. The most striking feature of the lesson is the intense eagerness to tell something, the alertness, the free play to the imagination of the pupils, and the absence of formality and anything like task or recitation. It is practically an exercise in imagination, grammar, language, expression, and arithmetic.

99. This subject logically follows Decimal Fractions, but as many pupils are compelled to leave school to follow business pursuits before they reach the grammar grades, this important practical "study" should be placed in the highest primary course, immediately succeeding the four fundamental rules. If pupils are instructed to express all amounts of United States money in dollars, cents, and mills, they will have no difficulty in writing money correctly. When the teacher says, "write twenty-five cents," the pupil will write $.250 not .25 merely. Or, if the teacher asks for

the writing of three dollars, the pupil should write $3.000 and not $3. or $3.00. The main advantage, or rather absolute necessity of this, will be appreciated when division of Federal money is reached, especially the case in which money is divided by money.

100. That the dollar mark ($) and decimal point are all-important; and that the work is of *no value* unless these signs are properly placed. If all money be carried out to cents and mills, there will be no necessity of teaching reduction of Federal money, provided the pupils are familiar with the table.

101. "Add five dollars and two and one-half-cents, thirty-seven and one-half cents, one dollar and sixty-two and one-half cents, forty-four cents and three mills, and two dollars and fifty-three cents and two mills, and subtract one cent from the sum." Have the pupil proceed thus:

$5.025
.375
1.625
.443
2.532

10.000
.010

Ans. 9.990

As the class is supposed to have no knowledge of Common Fractions, the teacher will instruct pupils to write five mills for one-half cent. Teach no other fractions of a cent.

102. Drill thoroughly in practical questions involving combinations of Addition, Subtraction, and Multiplication before commencing Division. The latter may be classified under the following cases: Money divided by an abstract number; money divided by a comparatively large abstract number; money divided by money; and then form combinations in problems similar to this: If 240 pounds of salt cost $6, what will 25 pounds cost?

240)6.000($.025
480

1200
1200

$.025
25

125
50

Ans. $.625 or 62½ cents = cost of 25 pounds.

103. When the teacher is instructing the class, all the pupils may, of course, solve each question simultaneously. In *testing* the school, however, the pupils should always have different

problems, and, when practicable, those involving different operations. To prevent copying, let all the right-hand pupils on each row of desks perform on one involving division, while their companions by their side, on the left, are engaged upon one involving multiplication; or have the former at work upon one division and one multiplication, while the latter use two divisions.

104. It is as follows: Beginning at the left, multiply the double of each digit of the given number by the number represented by the preceding digits, and write each product under those already obtained in such a way that its right-hand figure shall be two places to the right of the right-hand figure of the preceding product. Then square each digit successively, beginning at the right, and place the right-hand figure of the first result, one place to the right of the right-hand figure of the last product before obtained, and the right-hand figure of each succeeding square two places to the left of the right-hand figure of the preceding square. Add the columns, and the result will be the required square.

105. Mental arithmetic. Written arithmetic is the bringing in of slate and pencil, pen and pencil and paper, chalk and blackboard, to aid the memory when the numbers become too large and too complicated to be carried in the mind. School work should aim to accomplish two things: to develop thought and to teach expression. Hence the language used in solving problems and in "working examples" should be correct. The expression of an idea is of no less importance than the idea itself. For, it is from the expression of the idea by another that we get an understanding of the character and quality of the idea, as it exists in the mind. Such expressions as "I multiplied by so-and-so, and it gave me," and so on, are incorrect in many, many ways.

106. Written—slate-and-pencil arithmetic—is made the arithmetic of the school-room in the town and city. In the district schools the blackboard takes the place of the slate, and this is preferable with the higher grades. In both, mental arithmetic is being set aside, looked upon as an incumbrance, the natural sequence of the subject being made a "hobby" by many teachers and then ridden to death. This is wrong. It is true that mental and written arithmetic should not be looked upon as two separate studies, and treated as two subjects completely isolated from each other. This is wrong on the other extreme.

107. The old idea of "working arithmetic by rule" has exploded. For instance: From the analysis of a question we obtain a formula; from the formula we deduce a rule. Now, if we can analyze, what use is there of a rule? We do this by analysis. The result is the principle made into an instrument with which to

work out results. Instead of machines, we should aim to make our pupils machinists.

108. The test, efficiency and thoroughness of the comprehension. If the lesson includes a half-dozen problems, require each member of the class to prepare this lesson, writing out in full—or as fully as necessary—on slate or paper, the analysis of each, and let this work be brought to the recitation by the class, and while a question is being placed on the blackboard, the class may recite from their slates or papers.

109. It is just as necessary that the language used in an arithmetical recitation be elegant and accurate as that it be elegant and accurate in a recitation in Grammar, for expression is not only a test, but also a help to correct thinking.

110. 1. The statement and question; 2. The analysis; 3. The conclusion—or, really, the answer to the question asked in connection with the statement. This analysis may be, and should be, shortened and condensed just as soon as the pupil is able to do it, and do it intelligently and correctly.

111. Language is important, because any amount of learning is of little use if it cannot be expressed. Arithmetic, because it is necessary in the transaction of such business as must be done by every one, no matter what his calling may be.

112. Figures, instead of the science of numbers. Go into any average school, and ask to be shown a number, and the child will go to the board and write a figure; ask for a fraction and he will write "$\frac{1}{3}$"—which is no more a fraction than the word "cat" is a cat. We teach figures, and the bright children apply them to numbers. Give to the ordinary pupil this question:

I have a cord of wood, sticks four feet long, to be cut into three lengths for a stove, for which I pay $2; if I want another cord cut into four lengths, how much proportionately should I pay? And he will answer with edifying assurance, 2.66\frac{2}{3}$—which is wrong, of course. If I pay two dollars for two cuts, three cuts are worth three dollars; but the child didn't *think;* he used figures.—*Col. Parker.*

113. To develop the faculty of ready and sharp logic that is required in the applications of arithmetical process to the business of common life. A mental habit of readiness and accuracy in the processes of exact reasoning is of the highest value. We need this kind of mental drill, and greatly lament its *general* absence in the daily work of the common schools of to-day.

114. Through an improper use of Warren Colburn's admirable book. Teachers came to require of their pupils mere routine work and formulated processes of analysis in recitation—absolutely

foreign to the author's design. In many instances children were assigned daily lessons from this book and required to commit not only the *examples*, but the formula of explanation, to memory. Any single deviation from a prescribed form was treated as a failure on the part of the pupil. Such absurd and unphilosophical teaching of mental arithmetic served to secure its general abolition. The foolish abuse of the principle of analytic induction caused its abandonment, and the substitution of books and methods of a diluted and undisciplinary character.

115. Yes; and perhaps necessarily from "the eternal fitness of things." The primary pupil is instructed that $4+6\times2-7+9\div3=7\frac{1}{3}$, but the correct answer to this combination is $(4+[6\times2]-7+[9\div3])=12$; from the principle derived from the application of higher mathematics, that precedence is first given to the quantities connected by the sign of division, then those united by the multiplication sign, and finally the disposition of those governed by the plus and minus sign, no priority of use in the two latter changing the final result.

116. The wise teacher will avoid everything having the appearance of educational jugglery; but frequently in the communication of general information, in the five or ten-minute "talks" that many of the best and leading teachers in the country are in the habit of giving to their pupils, reference may be made to "lightning addition," obtaining a repetition of figures by the multiplication of the nine digits, circulating decimals, casting out the 9s and the 7s, and an explanation of the origin of the signs.

117. The sign of addition, called "plus," is derived from the initial letter of the word *plus*, thus, P P Γ *p* +, each time written more carelessly. The sign of subtraction, called "minus," was derived from the Latin *minus*, which was contracted into the letters *m n s*, with a horizontal line drawn above them to denote contraction. In the course of time the letters *m n s* were omitted, leaving the short horizontal line [−]. The multiplication sign was obtained by changing the sign of addition into the oblique cross ×, and this change was made for the reason that multiplication is the short way of performing many additions.

118. Its origin is a little obscure, but it is said to have been employed to save room on the printed page, and preserve its regularity. The dividend was written at the left of the sign, and the divisor at the right, and a dot was written in the places of the dividend and divisor. Thus $12\div3$.

The radical sign was derived from the letter r, the initial letter of radix. Thus $\sqrt{9}$. The sign of equality was first used by Robert Recorde, physician, in his *Whetstone of Witte*, published in 1557. He gives his reason in his own quaint manner, in the

following words: "And to avoid the tediouse repetition of these woordes, is equalle to, I will sette, as I doe often in woorkeuse, a paire of paralleles or Gemowe lines of one lengthe thus =, because noe 2 thynges can be more equalle."*

119. In recognizing numbers of things at sight. Ability to count must not be confounded with the true knowledge of things. Counting is generally ordinal; his four or five is apt to be nothing but the fourth or fifth. He may know numbers without knowing their names or the words that recall them. The names of numbers are frequently learned very early, and many children learn to count as far as 100 before they know even the letters of the alphabet, and long before they are placed in school at all.

120. Hold up three objects and say, "Bring me so many," is the first and easiest test. If this is successful, hold up a number of objects (not more than four), and say, "Bring me ——" (naming the number). Third test: hold up a number of objects and ask, "How many?" Fourth: request the child to bring you so many, giving the number without showing the object.

121. As soon as the children have a clear idea of *more* or *less*, which is the true idea of quantity, they should be taught to make small calculations. They are naturally fond of such exercises and acquire a facility in their performance. At the outset they should be led to exercise their own skill in "doing examples" adapted to their age and capacity. They should be required to observe and explain their method at arriving at results. If these methods are not the wisest, the teacher should act the part of a sagacious helper, and show his skill in imparting better ways.

122. It results in greater part from the attempt to teach too much during the first year. Too many teachers argue that the child can not reason, and therefore he must be taught the language, before the things. All this *unreason* arises from the attempt, that tradition forces upon us, to teach far more than the child can learn. There is no time in the child's life when he cannot see, judge, generalize, and imagine, providing the work is adapted to his mental capacity. It is this lack of adaptation which leads to this erratic theory and ruinous practice. Give the child time to grow, and wait patiently until the germs of power burst out of their fruitful soil of unconsciousness.

123. Cease using any object when it can be remembered and used without the presence of the object. This is a general rule, and applies to all object-teaching.

124. There is absolutely nothing new to be learned in all

* For further notice of the curiosities of mathematics, explanation of derivations, etc., see No 18, *Dime Series of Question Books.*

arithmetical teaching, except the processes which large numbers involve, such as is found in the additions, multiplications, subtractions, and divisions which can not be performed without the use of slate and pencil. All these processes should be discovered by pupils.

125. Probably that of percentage and its various applications, and it is *possible* that here a memorized knowledge of the rules governing the various cases—though in direct contradiction to the philosophical methods of teaching arithmetic—is of more utility in advancing the pupil than in any other subject of the study. Continued and persistent explanation, illustrated by the "thirty possible problems" of percentage, will only and alone give a mastery.

126. The average pupil experiences nearly as much difficulty in solving problems under this division as in the more difficult applications of percentage.

127. By the teacher *insisting* upon the memorizing of the simple fact that when longitude (or a difference of such) is reduced to time, 15 is used as a divisor; that, conversely, in reducing a difference of time to degrees of longitude, 15 is used as a multiplier.

128. By having them draw a circle on the slate or blackboard —the latter is preferable—and then, furnished with a thorough instruction in the *apparent* revolution of the sun around the earth, making so plain the cause of one hour's difference in time representing 15 degrees of longitude that the pupil may be able to give this explanation in connection with his solution of the problem. A school globe is a very useful accessory at this time.

129. With those especially in which the number of degrees (usually) is smaller than the divisor 15. This can be removed only by an illustration from the teacher of some three, four, or half a dozen cases, if necessary, of solutions of this class of problems. In the question: What amount of time is represented in 4 degrees, 23 minutes, 17 seconds? the showing to the class that, 4 being indivisible by the given divisor, a reduction to the next lower quantity or degree is essentially the first step will be found to aid the pupils sufficiently well, and encourage them to such development of their mathematical reasoning as will result in obtaining the answer—a correct one, if they have been drilled in securing accuracy of work.

130. By the Inductive Method, we solve each case by analysis, and derive the *rules* by inference or induction. By the Deductive Method, we first establish a few general principles, and then derive rules of operation from these principles.

131. Only so much as is necessary to show him how to study,

and keep him from discouragement. Let *him* do the work, while you point out the way, and encourage his application. And, if he asks for light, give him only *twilight*. This is Nature's method of imparting light to the world. First, in the morning, the darkness is relieved by the glimmering twilight; and by imperceptible degrees it steals upon us, more and more, until we bask in the full blaze of noonday. The anxious pupil sees but dimly the principle and the fact. He longs for more light. Encourage him to struggle for it, and let it in upon him slowly, and only as he needs it. "Never do anything for a pupil that he can be led to do for himself."

132. The working of all problems should be accompanied by drawings of squares, rectangles, circles, spheres, cubes, cylinders, etc. It adds interest to the recitation; ensures a more thorough knowledge of the subject; develops habits of accuracy and neatness; cultivates the hand and eye, and frequently arouses an honest rivalry in each member of the class to do better than his neighbor.

133. The term has come to be an acknowledged name for the definite departure from the old process of mind cultivation, and has already suffered by its practical adoption in the school-room by unthinking, unreasoning teachers, who only copy others as parrots learn to talk. They do not think that it is a lack of skill on their part that they fail, and that such failure results from not studying what to do and what to avoid. No one can ask or expect, before making a first attempt, a thoughtful, intelligent teacher, who has followed a certain course faithfully because it has seemed the best way for him, to lay it aside at an hour's notice, and work as conscientiously for a new, untried, though highly recommended, one. But let the winnowing process of careful experimental study be applied to them without prejudice and without haste. In this way only can the chaff be separated from the wheat.

134. Neatness and carefulness in the small item of making exact figures, and forming beautiful combinations of numbers. The scrawling, irregular-shaped figures that deface the blackboards of very many country and town schools should give place to order and precision, and accurately-shaped characters. It is quite probable that nine-tenths of the mistakes and failures which occur at the board find their origin, either remotely or immediately, in this slipshod work.

135. Practical applications; and, in solving such problems, pupils should be required to understand the words in which the problem is expressed, to point out the relation of the thing required to the thing given, to present a neat solution, and to explain their work in concise and appropriate language.

136. The former busies itself with finding out what are the facts in the case, and what these facts signify. The latter employs itself in arranging the facts in order, and in devoting them to such uses as will most effectually serve humanity.

137. First: to lead the pupil to make the transition from arithmetic to algebra. Second: to begin algebra with concrete problems, and not with the abstract operations of the science. Third: the pupil should have a thorough drill in the practice of algebra.

138. It ranks among the first of all studies for the discipline of thought power. It is the perfection of logic, and excels in training the mind to logical habits of thought. In this respect, it is superior to the study of Logic itself; for it is logic embodied in the science of form. While logic makes us familiar with the principles of reasoning, Geometry trains the mind to habits of reasoning. No study is so well adapted to make close and accurate thinkers. Euclid has done more to develop the logical faculty of the world than any book ever written. It has been the inspiring influence of scientific thought for ages, and is one of the corner-stones of modern civilization.

139. 1. A knowledge of geometry is adapted to the young mind. 2. The elements of geometry should be taught for their practical value. 3. Instruction in the elements of geometry lies at the basis of drawing; and 4, lessons in geometry will be of value in school discipline.

140. The methods in Algebra, Geometry, etc., are those for impressing abstract and symbolical notions and principles. The understanding must accompany the work throughout; the stage of routine manipulation, worked up to automatic dexterity, is left behind. To a certain extent, the mechanical processes may enter into Algebra; the pupil may receive certain instructions, and, without understanding the reasons, perform the simpler operations of adding, subtracting, multiplying, as in Arithmetic, but in the resolution of equations the principles must be understood.

141. Alexander Bain states that this science is better learned *after* Geometry, inasmuch as it works in part by demonstration or deduction from principles, for which by far the best commencement is Geometry. It has its own specialty, which consists in wrapping up the problems more completely in symbols, so that the inferences have to depend upon the validity of the symbolic representations and processes. The symbolic processes should be justified by explanations and demonstrations at the outset; and the pupil should fully comprehend these.

142. Of its utility—as it is the whole assemblage of measures derived from a fundamental standard, called METER—there can be

no question. Originating in France, it is a mooted question whether it will come into general use by the people of other countries. Its opponents declare that it is no more necessary to adopt it than it would be to accept the monetary system, decimal or otherwise, of France, England, etc. Its adoption by the Government, and almost universal use by scientists, does not necessarily make it "a part of us." Certainly a knowledge of its divisions—beautifully uniform—can be imparted to the pupils in a short time.

NATURAL HISTORY.

143. These sciences are typified, and made up chiefly, by Mineralogy, Botany, and Zoölogy. The methods of teaching these are not difficult to assign, although there are some things that serve to complicate them. It is understood that they repeat facts, notions already obtained in the general sciences, and that they are occupied with the arrangement, classification, and description of vast numbers of individual objects. Any of these sciences, and particularly the last two, would swamp and overwhelm the strongest memory, and the details would be unprofitable when lodged there. The teacher has to make a principle of selection that will guide him in making the most of a limited amount of time.

144. Principally by experiment. And this principle applies to Zoölogy, which can not be learned with any degree of sufficiency and exactness, unless the student practises dissection. In our common schools, topical diagrams alone supply the deficiency resulting from lack of apparatus.

145. Every school-room should contain a cabinet of the native woods growing in its vicinity. Our pupils are taught much concerning foreign countries, but very few can give correctly the names of half a dozen trees in sight of which they have lived for years. Boys and girls ought to know exactly the names, characteristics, uses, and value of the commonest trees and plants growing in their neighborhood. The early winter is the best season for the collection of specimens, as the bark is firmly adherent, and the wood is free from sap.

LANGUAGE LESSONS AND GRAMMAR.

146. A system of language lessons conforms to Nature's method of teaching language. The little child, prattling in its mother's arms, is engaged in its first lessons in composition. The simple name, the quality and action word, the short sentence, all come in the natural growth of the power of expression. In teaching, we must observe Nature's method and follow her golden rules. A

correct system of language lessons is founded upon the way in which a little child naturally learns oral and written language.

147. That a knowledge of language should precede a knowledge of grammar. This is the historical order of development. The ancients knew language and could use it in literature, but they had very little knowledge of grammar. Homer sang in immortal verse, and probably could not distinguish a noun from a verb. The *Iliad* embodied the rules of grammar, without the author being conscious of them; the rules of grammar were derived from the study of the *Iliad*. This is also the natural order,—practice precedes theory, the art comes before the science,—and should be followed in the early lessons on language.

148. That they may learn what *is* good language and form the habit of using it. We acquire language through imitation ; the pupil who has always heard good language will use good language; his ability to use good language does not depend upon his knowledge of grammar, but upon his having heard good English, read good English, and practised good English. No teacher can afford to dispense with the language exercise.

149. Not through the study of words, but through familiarity of speech; and the teachers's conversation, in school and out, has more to do with the child's power of expression than the teaching of grammar. True, the latter is essential as much for its reactionary influences on the teacher, as for its effect upon the pupils, but it is the teacher's unguarded utterance that has most permanent influence in moulding the child in the use of language.

150. Bain very cogently states some of the reasons why. He writes: A *few persons*, accustomed only to the best forms of the language, might approximate to a faultless style without grammar teaching; but not so the mass. By the ear alone we may be taught to avoid "houses *is*"; but the insidious breaches of concord due to the distance of the subject and the verb—"the price upon the houses *are*"—can hardly be explained without the terminology of grammar. . . . It is an aid to readiness, ease, correctness, and effectiveness of composition, to be lead to examine the structure, arrangement, and constituents of the sentence. We may dispense with this training, but it will be our loss ; we shall not compass the arts of style so rapidly in any other way.

151. The first aim would be to have the meaning of the words of any simple story or narration understood, by telling or otherwise. The second would be to sort out or classify all the words meaning persons, places, or things. Then the words used to express doing or being. Next describing words—1, of Nouns; 2, of Verbs. Next connecting words simply, and then words connect-

ing and showing relation. Thus far, no grammar should be used. The pupil should then learn the inflections and syntax of the text-book. Technical grammar should not be studied too early. Certainly not before a child is in its "teens."

152. These are figures or drawings, usually formed of lines oval, straight, or slightly bent (as in the brace), used to facilitate a demonstration of the agreement, construction, and arrangement of words. They are useful in picturing to the eye the several relations of words, phrases and clauses in the sentence.

153. When used merely as a mechanical form without the additional and supplementary training in outlining, verbal analysis, and parsing. Their constant use results in surfeiting the pupil with a mastery of pictured analysis and some skill in the elements of geometrical drawing, without teaching him the use of his mother-tongue. By judicious use, they will ever be a beneficial auxiliary in demonstrating his knowledge of proper grammatical connection.

154. In addition to systematic instruction, there is required: 1. Correct speech on the part of the teacher. 2. Careful selection of words by the teacher. 3. Care in the choice of reading and of arrangement. For several years from the beginning, the course of language-lessons runs closely parallel with object-lessons, and they must be treated as mutually complementary. As the child's intellect expands and he becomes capable of examining objects minutely, his attention should be called to resemblances and differences, to the parts, material, qualities, and uses of the objects presented. Exercises of this kind, properly conducted, give a large number of concrete nouns and of such adjectives as are needed for simple descriptions of material things.

155. Reading and spelling might be considered as coming within the scope of this subject, but the special aim here is to develop the power of using the language with readiness, grammatical propriety, elegance, and force; for one of the chief ends of education is universally conceded to be the cultivation of the power of thought, and words are its expression.

156. Language. No intellectual necessity of man is greater than such a knowledge as shall unlock for him the records and treasures of all ages, enabling him to contribute of his own knowledge and thought to the profit and pleasure of mankind. If the teacher can realize what a blessing he is conferring upon humanity when he teaches language, he will not enter upon the grammar hour with so much reluctance. It will never be as satisfactory as mathematics, "an exact science;" or as reading, which may become an imitative art; or as geography, which may

be fervently taught; or even as spelling, that may be almost silently taught; but it may be so directed as an exercise as to be of the highest value to them.

157. Of that captious disposition which results in magnifying little matters. In the teacher's daily duties and surroundings, and in the examinations upon minutiæ to which he is constantly subjected, it is easy to discover the cause of this "disease." But it is none the less unfortunate.

158. All young teachers have this incipient form of great wisdom, and it seems to be as absolutely necessary to their after better mental condition as the measles are to a healthy development of childhood. It is to be noted that there are many books published on this subject—some *apparently* on reliable authority —that are totally unworthy of the attention of the teacher, proving as they do veritable *pitfalls* for him, while others, manufactured to order, are to be received, *cum grano salis*. The study of philology is a most abstruse one, and no single writer's opinions are by any means infallible. It is no sign of "smartness" to advance these objections culled from other sources.

159. Sometimes, unfortunately, by a spirit of unfairness in attempting to trip the fellow teacher into some statement antagonistic to the "decree" of the text book author, or by a confession of ignorance of the construction of a word of which the querist was himself, possibly half an hour previous. Precious time has been thus wasted, when a proper discussion of ways, means, methods, and the solution of the difficulties of the school-room was the proper work. All such jugglery should be decried by the good sense of the presiding officer.

160. Like and As. "The similarity and yet difference of these two little words often give use to obscurity in the writings of even the most thoroughly educated. A sentence in a newspaper remonstrating against the laborers in a gas-works being compelled to work twelve hours a day before red-hot furnaces, runs thus: 'The directors could fill their places in three hours from the docks alone; but that does not give them a right to use men up *like* Cuban planters.' Of course the writer meant to say that the directors had no right to use up men as Cuban planters use up negroes. The obscurity of his expression arose from the misunderstanding of the distinction between *like* and *as*."—*On the Use of Words.*

161. Outside of gross vulgarisms and barbarisms—common in many cases to both pupil and teacher—are the uses of the past tense of many verbs with the auxiliary verbs have, had, etc.; the use of the participle instead of the past tense with the first person,

as *I done;* and the euphonious error of *don't* with the third person singular.

162. Principally by having your class or classes drilled on the conjugation of the verbs. Assign the verb "believe" to them daily for slate work, in one or more tenses, through the active and passive voices. Succeed this by similar drill in "fall," "see," "freeze," "eat," and many others, varied by having the class write on the blackboard such sentences as "I should have fell," "I have froze," "I haven't saw," etc., and then rewrite the sentence correctly, explaining the fault in the former sentence.

163. By further illustration of the *puzzling* verbs "lie" and "lay," "sit" and "set," and an explanation of the auxiliaries *shall* and *will;* and here where so many grammarians are suspiciously silent, it is best to simply state that *shall* is used in the first persons, and *will* in the second and third, in ordinary affirmation; or *vice versa* in their use, when strong determination is asserted.

164. It is one that frequently does not exist owing to the paucity of knowledge of the subject by the teacher, or in its stead there is a pseudo-criticism fever permeating his instruction as to whether five and six *are* eleven or five and six *is* eleven; but it is that resulting from *trying to teach too much* where the instructor is scholarly and really well versed in the subject.

165. The pupil can readily give a very charming analysis of those oft-quoted lines from Whittier's *Snow Bound*, and furnish on slate or blackboard a picturesque diagram (according to Clark or some one of the manifold modifications and variations of the Brace System) of the interesting lines selected from Goldsmith's *The Village Schoolmaster:*

> "Here, in his noisy mansion, skilled to rule,
> The village master taught his little school;"

and at the very moment possibly, or some minutes later, indulge in one or more of the ungrammatical expressions that result principally from *not* being drilled in such a simple matter as the conjugation of verbs.

166. It is a mistake. English grammar, well studied, puts the student in possession of many important facts concerning the English language. The student thus adds to his stock of information. Additionally, it will give the pupil a kind of discipline he can not gain in any other way. Distinctions of words and forms, idioms and constructions, are important in themselves, and the nice observation of them develops a critical faculty that can not be obtained from mathematical or scientific studies. It is a study, however, for the advanced pupils.

167. It should be so taught as to improve the pupil's use of language. Even if a pupil has a good command of words, forms, and constructions, there are still some things that he must learn by rule and practice. He may by imitation pronounce his plurals and possessives correctly, but he can not thus spell and write them. But in the cases of the majority there are numerous errors of speech that spring from association, and that can be rooted out only by persistent criticism and correction. Some of these are errors of Etymology, and some, errors of Syntax.

168. He should pay much attention to the practical side of the subject; the grammar study and the language lessons should be taught together. Moreover, the teacher must not be content with mere corrections of errors. In the discussion of false forms, four steps may be noted; the error, the reason why it is an error, the correction, and the reason why the correction is made.

169. *Young* pupils do not learn half as much good English from their text-books as they do from their teacher, if she is accurate and choice in her language. A pupil may decline the pronoun "I" a hundred times, and repeat the rule for the objective case as often, and yet he will say "Olla gave the flowers to Mary and I" if his teacher uses such construction. On the contrary, if his teacher says "She gave it to Mary and me," he will say the same, though he never looked into a grammar. *Corrollary* 1. A child would never use *bad grammar*, if he had never heard *bad grammar*. *Corrollary* 2. Children in their language are much the same as are their models.

170. The important thing in the guidance of children toward the acquirement of ease and correctness of expression, is to see from the earliest moment in school-life that every spoken or written sentence that comes under their observation be correct and even elegant. That this shall be done must be made the constant care of every teacher. The pupil watches the movements and imitates the words and actions to a far greater extent than the teacher knows.

171. Let the teacher never speak incorrectly himself, nor permit an incorrect expression of a pupil to pass unheeded, and there is a *probability* of our seeing and hearing such forms of language for them as would honor even "a well of English undefiled."

172. That feeling which is common among many district school teachers, of constraint, awkwardness, amounting in some cases to almost shame, to speak grammatical English when at home, on the farm, or by the fireside. If you are to be exposed to ridicule for speaking correctly, even if it comes in contradiction to

the language of your parents, the sooner the matter is settled by a judicious stand, the better for the sake of all, and especially your own welfare. The attempt to indulge in too set forms of speech—one for the schoolroom and the other for the "world" —can not be too much decried.

173. As there is no royal road to learning, in general, so there is no one method for teaching language so pre-eminent that it may be regarded as the *best* method. It is, however, strikingly manifest that those teachers secure the most satisfactory results who work in accordance with methods of their own arranging; who are not mere imitators, but intelligent executors of methods which they have thoughtfully devised.

174. As one of the objections made strongly against the "rote" parsing (characterized by some as "senseless memorizing") of "John is a noun, singular number, masculine gender," etc., and yet as it is absolutely necessary that a knowledge of the properties of the various parts of speech should be held by the pupil, there can be used "outlines," similar to the following, and given as slate-work or produced on the blackboard:

For the Substantive.	*For the Verb.*
Species.	Species.
Class.	Class.
Sub-class.	Sub-class.
Person.	Voice.
Gender.	Mode.
Number.	Tense.
Declension.	Conjugation.
Case.	Person.
Construction.	Number.
	Construction.

175. Closer attention on the part of the pupils to the technicalities of language. The work being before the eyes of all—blackboard outlining is preferable—a spirit of emulation is aroused between the members of the class, resulting in growing accuracy, daily. They will not withstand the criticism of their associates.

176. First, it enables all the class to be reciting at the same time. Second, it impresses the relations of words by seeing them written. Third, it leads to an exactness of statement that the oral method does not always attain—even if used; and the popular expression of our leading teachers is against its use.

177. That which properly may be denominated "collateral" parsing; where, using the same form of outline as above given, after a sentence has been written on the blackboard or a line or

two of poetry and prose recited by the teacher, the pupils "in turn" parse the word.

178. Securing the attention of the class and developing the faculty of criticism among the pupils. Necessary corrections may be indicated by the up-raised hand of the pupil.

179. By dispensing with the book, for the time being, as soon as a knowledge of the noun has been obtained. Select familiar sentences from their readers and have them simply parse, outline, and diagram the noun until it is well understood, and stop *just before* this subject even is monotonous. So complete the study with these variations from text-book to slate or blackboard, or both.

180. By following a similar plan concerning the noun. First make the pupils familiar with this part of speech by numerous illustrations and examples. They will then be ready for the name *verb*, and possibly for a definition. The arrangement of its properties and its construction naturally follows.

181. Those of the simplest form and accurate in statement. Teachers have not the time nor opportunity, in the ordinary grade of schools, to enter into discussion with the pupils regarding text-book statements. To commit and "parrot off" the definitions of others is time worse than wasted. In schools of the higher grade there is time to investigate, to decide, to point out errors, to carry a proposition to logical conclusions, and to analyze these are positive advantages.

182. The teacher *must be* in the position to have his statements accepted by the pupils unquestioned. Necessarily, he should be correct. Do not accept the definition of a regular verb as "one that adds *d* or *ed* to the present," as this would include *hear*, an irregular verb; or "a regular verb is one whose past indicative and perfect participles end in *ed*," as this includes the irregular verbs *fed* and *led;* but simply that "a regular verb is one which adds *ed* to the present to form the past indicative and perfect participles."

183. It frequently happens that a teacher, from a natural liking or knowledge of the subject, and sometimes simply as the result of an affected conceit, attempts to give some instruction in this division of grammar, but always with the only result of having called the pupil's attention to a curiosity, or of wasting a few days of the school's recitations. Properly, it should be left alone under these circumstances.

184. Considerable. The knowledge which he may attain by a study of any one of the half-dozen excellent little manuals published on the subject, may be imparted to the pupils, additional to

that contained in their grammar, by writing simple sentences on the blackboard, properly punctuated, with specimens of the superscriptions of letters, forms of address, letter headings, etc. The use of quotation marks, interrogation and exclamation points, may be insisted upon from the start.

185. Write on the blackboard the following:

"The day is done, and the darkness
Falls from the wings of night
As a feather is wafted downward
From an eagle in his flight.

"I see the lights of the village
Gleam through the rain and the mist,
And a feeling of sadness comes o'er me,
That my soul can not resist:"—*Longfellow.*

186. 1. Those relative to Punctuation and Capitals. (*a*) Call the attention to the use of the comma in the series of nouns, and then form a rule. (*b*) How many commas in the whole lesson? (*c*) Name and use of the punctuation mark after "resist." (*d*) Why is the dash used before the author's name? (*e*) How many periods in this lesson? How many sentences? Why does each line commence with a capital letter?

2. Regarding the Parts of Speech. (*a*) Write in column all the nouns. How many are there? (*b*) How many nouns are plural? (*c*) Write the verbs. How many? (*d*) How many times is the article *the* used in this lesson? The article *a* or *an?* (*e*) How many prepositions in the lesson? (*f*) How many times is the conjunction *and* used? (*g*) Name the pronouns. (*h*) How many paragraphs? How many sentences? (*i*) Write from memory the first verse—the second. (*j*) Compare with original and correct the punctuation and other errors.

COMPOSITION.

187. The teacher could not be confronted by any more appalling task than that of managing the compositions of a hundred or more boys and girls—or even the lowest allotment of twenty-five or thirty—who are neither innocent enough to work for praise, nor experienced enough to know the value of literary accomplishments. About equally convinced that compositions are of no value in themselves, and that if they were, he himself could never write anything worth reading, the average boy teaches himself to look upon them as an unmitigated nuisance, and upon the teacher who requires them as an enemy to his happiness.

188. He should remember that as there is a traditional antipathy to the task, it is best in the first place not to insist upon their production *too often*. During the first of the term they may for a

short time alternate weekly with map-drawing. Later, require them only once in three weeks, and if a holiday occurs on Friday —the *usual* day for making the requirement—delay the exercise until the next week. It gives an "air of freedom" to the matter that is appreciated by the pupils. Again, if possible, obtain their consent to write one complete essay, treating a subject fully and prepared with especial care, giving them an extension of time for its composition. This is of more value in developing the ability to compose than a number of short ones would be.

189. Letter writing. A matter that is sadly neglected in our common, graded, and even many of our high, schools. The teacher should place upon the blackboard a drawing of a parallelogram—the ordinary shape of the envelope—and write some three or four different forms of addresses. Then furnish the pupils with an example of proper dating, letter heading, the address of the letter itself, some hints relative to the "body" of the epistle, showing them varying forms of closing, and request them to bring in the composition, with a cancelled stamp placed on the upper right-hand corner, with an imitation of the post-office stamp.

190. *Reproduction from memory.* It demands a low grade of the inventive, originating activity of the mind. The pupil in trying to reproduce the idea calls into operation every faculty of the mind to select the words most suitable for the idea. Unsuccessful efforts to express are the best means of teaching the value of the words. We learn the value of words by needing them. Having really felt their want, when we at last get them they are appreciated. The constant failure to express ideas well is the best possible training toward ready language.

191. Topics taken from the reading lesson may be used. An exellent preliminary drill is to read to the class (grammar it is presupposed) some short, interesting, spicy narrative, and at its close request them to write it on their slates for your inspection. Taking special opportunity for this, you may correct these embryo theses while the pupils wait, reading aloud certain portions that indicate discrimination or good judgment, or, on the contrary, require some present criticism, grading them as you proceed. The name of the writer should not be mentioned, and this applies only to a class of twelve or fifteen members.

192. As a general thing, yes. Don't ask young pupils to make their own selection. It is cruel. It is shirking a duty which is harder for them than for you. Don't make too much of these efforts. Take time for it, and real, genuine, healthy progress will be your sure reward.

193. This depends greatly upon the grade of the school, its *morale*, the advancement of the pupils, and the efficiency of the instruction. In the matter of grading, some district schools are superior to those in town, and here elementary composition writing in connection with the grammar may be used daily; in others two or three times a week; in some once a week only. In graded schools it is generally a requirement made fortnightly from the pupils, alternating with map-drawing. In the grammar schools of the different cities various exercises are demanded on succeeding Friday afternoons, such as printing (in script, German text, etc.), compositions, and map-drawing, so that this study comes up but once a month.

194. Very good. We once asked the pupils to open their geographies to the map of the British Isles, and then followed a supposed route from the extreme southwestern point of England, mentioning the larger cities, such natural curiosities as came to our memory, reference to the poem in Home's *Douglas* of "*On the Grampian Hills*," etc., an account of Balmoral Castle, the summer residence of the Queen, on to Duncansby Head. We then referred the class to the account of John O'Groat given in the Webster's *Unabridged* lying on the desk, supplemented it with some additional information, and then announced as the topic, "From Land's End to John O'Groat's House." No copying was allowed during the preliminary talk, or from their text-books. Out of a class of thirty-five, some six or eight compositions were produced quite suitable for the columns of the town paper (weekly) to which they were referred and in which they were printed. The class consisted of boys and girls, of ordinary intellect, from twelve to fifteen years of age.

195. This is the highest, most profitable, and, if the matter is properly managed, really the easiest, form. It may be oral or written. A thousand devices will lead to it. If the *Psalm of Life* is the reading lesson, you may request the pupils to be ready to tell what they would have their life to be, as their next lesson. Have the relation of a military funeral, a steamboat disaster, a great fire, a noted flood, a terrrible cyclone, the beauty and strength of the ocean, an account of a field of waving wheat or other grain, with a great selection of a variety of topics, such as meets the taste or circumstances of the pupils, and after the oral recitation ask for its "written account."

196. It is quite difficult to regulate this matter. A hint privately given to a pupil furnishes better result than any other form, though the general statement may be made that the teacher desires nothing less than three or four or six pages of note paper as of sufficient length. To the boy or girl who shirks and brings you

but a page or a page and a half, carelessly written in haste and badly composed, some special correction should be given by forcing him or her to prepare a better substitute. In higher schools, compositions are frequently presented with the sheets stitched together and fastened with ribbons in artistic fashion, and, in some cases, accompanied with drawings of real excellence. There have been presented compositions that were exquisite in tone and almost faultless in penmanship and punctuation; and it is quite possible to receive some very miserable "scrawls."

197. Without trenching upon the advanced subject of essay writing taught in high schools and required from the college student, in the guise of a theme, valedictory, etc., the pupil of the common school may be taught to write biographical sketches, commencing possibly with an autobiography, stating his name, date and place of birth, parents, with ages and occupation, first remembrances, where educated, personal appearance, favorite occupation, characteristics, and plans for the future. The teacher may aid materially by placing upon the blackboard a skilfully arranged outline of this as a preliminary movement.

198. It is the filling up of omissions or ellipses, so common in every language as to be an authorized fact of the language. Half the difficulties of grammatical parsing grow out of these ellipses. "Please to give me (or, more commonly, please give me) something to drink" is a grammatical puzzle until the full expression is given—"May it please you to give me something that I may drink."

199. The elliptical use of nouns, as "stone walls;" "walls that are made of stones." Another important contraction is the turning of clauses into abstract nouns—"What we see, we believe," "seeing is believing," "sight is belief."

200. The arrangement of words and clauses in sentences admits of great variation, and many of the most successful teachers in this study insist upon a lengthened drill in the different placing of qualifying words, the substitution of subjects, predicates, and the auxiliary elements (adjective, objective, and adverbial) in sentences lacking such. The teacher can form to himself a scheme of variation, for which Grammar and his own sense will be the guide.

201. When pupils have arrived at a stage of intellectual development to enable them to comprehend the principles of language as a science. This can seldom be done in the country school, but must be left to the instruction that can be given under the favoring conditions of a high graded school, or the private academies and seminaries.

RHETORIC.

202. As the subject is but a continuation of advanced grammar, its treatment must be similar, consisting largely of drills in the correction of false forms of diction, construction, and the avoidance of ambiguity of thought and expression.

203. By an exercise in the analysis of words in which the pupil is made familiar with the results of modern philological research in regard to the formation of words and the growth of language. By the careful study of his own vernacular, he obtains a knowledge of the roots derived from all the languages which enter into the English; he gets that nice and discriminating use of words which is usually sought in the study of a foreign language, and he acquires the power of etymological analysis, which will be of great worth to him in practical life, and in the continuation of linguistic studies.

ETYMOLOGY.

204. Not necessarily. It may be introduced into classes of ordinary advancement in grammar, and especially with beneficial results where there is no probability of the pupils receiving higher instruction in a language course. A study of this kind, while it can not take the place of a thorough culture in the classic "tongues," will be found an excellent preparation for such culture, and it will prove of much greater practical value than superficial classic study.

205. It aids in the use of words with precision and accuracy, when we know their history as well as their present meaning. It is the science of *etymons;* that is, of true primitive forms, and traces words from language to language back to their origins. Unfortunately this branch, which is one means of teaching a correct use of language, does not appear to be taught so much as it was twenty years ago.

The more general teaching of Latin has crowded it out of the curriculum of many of our higher schools. But a large proportion of children do not have time for Latin, and it is proper that all who get beyond the bare elementary branches should be taught, at least, the prefixes and suffixes used in English words, and thus be intelligently fortified against such very common mistakes as the use of "except" for "accept." The child who clearly understands that *accept* means to take *to* one's self, while *except* means to put *out*, will probably cease to "except" its friend's letters.

206. Any good text-book on the subject indicates properly the

method of instruction, which is supplying the definitions of roots, prefixes, and suffixes (affixes) in addition to the drills in original meaning of words, and the interchange of synonyms. The better grade of readers furnish this latter exercise, which, in connection with composition work, is of the greatest benefit.

LITERATURE.

207. That which leads to the study of literature as a distinct branch. While studying the models of English composition, the student should be assisted to undertake a course of reading carefully planned by the teacher. Each author should be thoroughly studied, and his characteristics as a writer, his peculiarities, habits, tastes, personal appearance, etc., noticed. Following this, an exercise may be held each week, to which all the members of the class are required to contribute something relative to the author. This can only be done, successfully, in the schools of our larger towns, having ready access to books of reference through the medium of public libraries.

208. Yes ; and by an earnest teacher with the most gratifying results. A small manual* placed in the hands of the pupils as supplementary to the reading lessons and ultimately as a special study, will, in many cases, revolutionize the mental condition of a school, and serve as an intellectual incentive to additional interest in other studies.

209. The probability is, that after the first fresh enthusiasm that pupils always feel, *everywhere*, in having possession of a "new book," it will require some *tact* on the part of the teacher to prevent the exercise from becoming dry and insipid. A mere recital of the dates of birth and death of an author with the list of his works, is not literature, nor the study of literature. It should be remembered that the knowledge of the teacher must be sufficient to fill out and supplement the brief descriptions of a text-book. As soon as practically convenient, have the class engaged in preparing topical outlines of the authors, giving their birth, death, incidents in their career, their married life, manner and conversation, striking peculiarities, social standing, the financial reward of their labors, list of productions, some leading familiar quotation or "oft-repeated phrase," and their burial place.

210. By having the pupils place upon the blackboard—the teacher should illustrate at first by some three or four examples—a brace, or any form of connecting outline, filling in similar to the following:

**Short Studies in Literature*, Eldredge & Bro., Philadelphia (price, 60 cents).

WILLIAM SHAKESPEARE.	1564—April 23—Birth; Stratford-upon-Avon. 1582—Marriage to Anne Hathaway. 1584—Departure for London. 1598—Acted for the last time in Ben Jonson's *Sejanus.* 1611—Returned home. 1616—Death ; on fifty-third birthday. List of works. Familiar quotations. Personal appearance, characteristics, married life, style of handwriting, etc.

NOTE:—The "matter" following date of death is left unfilled, as such information can be derived from the text-book.

211. Naturally, no small text-book can supply else than a few meager facts relative to an author, and offer but a few brief selections from his works ; but not only the teacher but the pupils should have cultivated a disposition to search for additional information and extracts. Hardly any community is so isolated but what they are favored with their weekly local paper, and hardly any rural publication but what will contain, frequently, just such details, in the way of literary gossip, clippings, stereotyped news, and some poetical selections. To the schools in villages and larger towns the "daily" and the circulating library, offer all that is needed.

212. From the beginning, he should place himself within the reach of all means tending to a full knowledge of the subject, which he can do by subscribing to some two or three cheap publications—as low as fifty cents per annum—and constantly search the columns for such literary gems as will be useful. A scrap-book containing all these cuttings will be of inestimable value to him. Under passably favorable conditions, he can secure the co-operation of his more intelligent pupils, and they, too, will furnish scrap-books for use in the recitation.

213. It should be remembered that all these remarks are based upon the supposition—and such is frequently the case—that the school is comparatively ignorant of the subject and that even the teacher may be but indifferently prepared to give instruction. In our larger towns and cities, where school children have access to the morning and evening paper, the school and public library, and a hundred-and-one mediums of information, a love of literature—the study of good books—is fostered from infancy, and the class accept an introduction into the use of such text-book with more or less delight, based naturally upon their inclinations, but it is in the retired village or comparatively obscure and isolated district-school, that the scrap-book becomes the circulating library and is the great incentive to the acquisition of more knowledge. The teacher may loan his, under certain restrictions, to the pupils, and those that have been "made" by them should be at hand for ready

use. The wise teacher will have his prepared as an introductory movement in which to engage the interest of the class.

214. The recital of such anecdotes illustrating the whims, peculiarities, struggles, rewards, and habits of authors, as may come to the notice of the teacher—and there is an immense fund of such "gossip"—by him, to the pupils, at appropriate intervals, but exercising sufficient judgment to prevent himself from degenerating into a mere story-teller. It is quite impossible to have children like literature at first from simply the innate beauty of the expression or the sentiment conveyed. Such appreciation is a "plant of slow growth," but it will come from these simple elementary aids to be a matter of *need*, producing that culture which tends to the harmonious development of mind and soul.

215. By a devotion to low and sensational literary works. Like the growth of a poisonous fungus, the taste for this literature absorbs the vital forces and destroys all that is noble in life. The teacher should do all in his power to extirpate this evil, and make every effort to cultivate a taste for the works of the great masters of human thought. Experience shows that there is no more effectual way to prevent the mind from dwelling upon impure and gross subjects than by filling it completely with those of an opposite character.

216. As a part of human history, and as a result of human effort, and such instruction should be introduced objectively in the senior grades, and receive a more thorough treatment in the academic department under the heads of English Literature and General Literature.

217. Frequently the leading authors are arranged in an interesting chronology, and an attempt made to have this fixed in the memory long before the characteristics of each can be understood. Their lives also are read, as narrative interest; including the mention of their works, the dates and subjects of these, with a few necessarily vague expressions respecting their merits. This is scarcely lesson work, however; it is rather the amusement of growing minds. The teaching of the subject has also taken the form of the study of selected works from Chaucer downwards. High Schools and Colleges are provided with an ample series of such works, with every needful aid in the way of commentary or annotation.

218. The later authors are to be preferred to the earlier, and the prose authors to the poets. The first of these two maxims arises from the fact that English prose style has improved and is improving; while the thoughts and the general interest are still more in favor of the moderns. The pupil, at the outset, should

see prose at its very best; and should be led backwards to the less perfect examples. The interest of many of the older prose writers, although not entirely exhausted, undergoes an almost steady decrease with the lapse of time.

219. Narrowed to its strict domain, it is the criticism of literary works in all that relates to style or composition. What makes the history is the regarding of our authors (English and American) in a connected series, each having more or less relation to the preceding. This historical treatment of literature is itself a branch of the Belles Letters, being always conducted with studious regard to the graces of composition.

ORTHOGRAPHY.

220. During the first year it is entirely to prepare for composition or "talking with the pencil." Indeed, all spelling is for the sake of composition, and it has no other purpose. The words first taught on the blackboard in reading, and the commonly used and constantly recurring words of the child, in short, the script vocabulary, should be the words first spelled. It should be remembered that those who do not learn to spell when young, seldom acquire the ability to do so. Consequently, make every step with the small child a success, otherwise you may disgust the mind with its failures.

221. The *Oral* and the *Written*. The first possesses several advantages: It teaches pupils to pronounce words, which the written method does not. It also teaches the correct syllabication of words, and it admits of several interesting methods of competitive recitation. Its disadvantages are, that pupils taught to spell orally will not usually spell correctly when they are writing. It is frequently noticed that pupils will spell without mistake, when pronounced to them, the words which they have misspelled in a letter or composition. Neither can each pupil of a class spell as many words of the lesson as by the written method. The advantages of the written method are, that we learn to spell more readily by sight than by sound; a pupil taught by this method will spell correctly when he writes (which is the principal object to be attained in the study of orthography); he will spell all the words in the lesson; and it gives him an opportunity to review the misspelled words.

222. If the syllables are pronounced, the words can be more easily pronounced. It is a kind of analysis of the word.

223. To copy sentences as soon as possible, and after that keep to sentences, for they are the written forms of thought expression, and the stimulus of the thought enables the child to recall the

word-forms in writing, just as it does in reading. Do all this work easily and slowly, and in the doing of it let the child alone and don't "fuss" with him. If he makes anything wrong, rub it out at once; make a sort of dissolving view. Have him acquire the power of copying from the blackboard with *perfect accuracy* any sentence he can read. Never accept any careless work. Don't scold, but let the work vanish under the sponge with quiet celerity and have the child do it over. A better vocabulary can be gained by writing than by reading.

224. By holding your pupils responsible for correct spelling in every written exercise; otherwise the habit can not be formed. Make and retain lists of words misspelled. Let the practice be *mainly* on such words. Pupils learn to spell by practice, not by studying columns of words. Accustom them to observe carefully the spelling of words as they read. The teacher can stop during the recitation to refer to the dictionary, or from the abundance of his own knowledge, refer to the duplicate spelling of a word, or its obsolete use and modernized version, and allow them to bring in lists of words as test exercises. No pupil should be allowed to write a word from dictation unless he knows exactly how it looks correctly spelled. *Never* let him *guess,* but draw a blank when he is in doubt.

225. Training the organs of hearing so that children may readily distinguish the sounds heard in speaking; that they may learn to produce the sounds correctly in using language; and that they may acquire an articulation which shall be at once both accurate and tasteful.

226. Oral spelling secures correct pronunciation, and awakens a keener interest in pupils; written spelling is the more practical, but is apt to become wearisome if carried on exclusively. In written spelling, we have the use of the hand as an aid to memory. With diacritical marks, the value of this exercise is greatly increased, and should be written in connection with written language lessons and drills in phonics. A judicious combination can be made of oral spelling with written exercises. With the writing exercise, after the paper or slates are corrected, require pupils to rewrite their misspelled words.

227. Words should be known by the pupil in their spoken form and in their use before he is required to use them. The pupil should spell all the words in the range of his experience, all he has occasion to use in his daily needs. He should read any new word in an original sentence before he is required to spell it.

228. The blackboard is possibly the best. Then the slate and pencil, although the blank-book or sheet of writing paper is

preferable—writing tablets and "scratch" books are to be purchased for the veriest trifle—and with great care a spelling-book, if the teacher needs it.

229. It will be quite impossible to do so in the common school, no matter how feasible such action may be in schools of higher grades. The teacher is unfortunate who can see nothing in a book but a succession of words to be spelled, and nothing in a word but a string of letters whose chief use is to be shouted across the school-room. And it is quite possible to use a spelling-book so as to interest the mind. It is well to know, however, that the tendency to discard the use of the spelling-book, substituting therefore lists of words selected by the teacher, has been stopped, and that there is a return to the "good old way." It will not do to waste time over words that a child could not misspell, but rather, drill on words of difficult orthography.

230. With primary pupils it is hardly neccessary, and where there is nothing but slate or blackboard work it is naturally quite impossible. With the higher classes, even in the common school, it is quite advisable to have the pupils use blank-books for their spelling lessons, and the principle should be instilled into them of keeping them neat and accepting them as "records" of their lessons and additionally, as specimens of their penmanship, exhibiting, it is to be hoped, a noteworthy progress in both studies. Under certain conditions in the "district," the teacher will not have the power to insist upon an exclusive use of paper, though the exercise of tact on his part will help to determine the matter. Naturally, he will follow the expressed wishes of his patrons.

231. Tell them (1) To look at a word long enough to see it perfectly. (2) Shut the book; think how the word looks, then write it upon the slate. (3) Compare the words as written with the printed page, and make a check against the errors. (4) Repeat the process where mistakes have been made, looking more carefully still at the words spelled wrong, until a correct image is made in the mind. It may be remarked here, that there is undoubtedly a "vain repetition" in spelling or giving to pupils almost constantly the words which they do not misspell.

232. It is quite probable that many a teacher devotes too much time to this pleasantry; that it has its merits there can be no doubt, and it is a fact of self-experience that district schools have frequently been taught but little else. The Memorus Wordwell of the community was the leading citizen in an educational and always in a popular sense, but it is our duty to supplant the *constant* use of this exercise, even if in opposition to the expressed wishes of the pupils and the inclinations of the parents, to some extent, by the introduction of some other form of mental advance-

ment. Many rural communities have gladly accepted, when initiated by a teacher of tact, the reading club, the literary circle, and the debating society. There can be no doubt, however, but what the spelling match contains an element of popularity subserving some good purpose, and may be used, at long intervals, in the graded school and schools of higher instruction, as is frequently done.

233. No; the verbal reiteration of long columns of words, or of words disconnected in sense, produces but very little good results. In repetition of a previous statement, there should be a judicious combination of oral and written spelling, the latter increasing in use as the pupil advances in years. But even this will prove comparatively unsatisfactory unless an incorporation of the words into sentences is had, and, additionally, their definitions and use as so defined.

234. To the formation of a "definition class." It is remarkable with what avidity a class of boys and girls of common advancement in their studies, and under the most ordinary circumstances, will accept the introduction of this praiseworthy mental exercise and the amount of work required from them, for its successful prosecution. If the school is without an *Unabridged* and the teacher is unable financially to secure one—though we have known of many instances of impoverished teachers securing them as a premium by acting as agent in getting subscribers for a paper, collecting a small sum *per capita* from the pupils and then adding the balance necessary to make the amount of purchase money, even in the "backwoods"—try to secure the co-operation of the directors or the patrons of the school, or both, in raising the sum necessary to buy one. If all this fails, you can certainly secure the adoption of some three, four, or half a dozen copies of the smaller grammar school or academic editions.

235. Before the class is formed, require the pupils, occasionally, to define the simpler words, which they will naturally do to the best of their ability, and to construct sentences showing the meaning and the use of words. When the dictionaries are introduced, give the pupils a model similar to the following: "John came slowly toward his *cottage* home." The underscored word indicates the one whose definition is required. Some five or six sentences may be placed upon the blackboard daily, or simply that number of words—to be incorporated into original sentences by the pupils themselves—for the morrow's lesson.

236. The pupils may obtain a better knowledge of ordinary words: (1) Examples of simple words frequently mispronounced; as aunt, God, won't, want, extant, etc. (2) Examples of simple words frequently misspelled; as cupful, separate, repetition, until,

etc. (3) Examples of simple words frequently misused; as don't for doesn't; can for may; shall for will; equals for equal, etc. In fact, the use of the dictionary may be regarded as a variation of the work of the spelling and grammar classes, and leads to the introduction of the study of the distinct branch, etymology.

237. The correct pronunciation of geographical names, many of which are omitted from the vocabularies of geographies; as Pompeii, Worcester, Balaklava, Trafalgar, Monaco, Balmoral, Alnwick, Seville, etc.; the correct pronunciation of biographical names found in the lessons and in current literature; some account of the noted characters of fiction; history and mythology, whose names are found in the reading lessons and in various selections; the interpretation of foreign words and phrases frequently met in our readings; and the origin of many words in common use referring to customs, persons and events.

238. It should be remembered that the best teachers are generally those who consult the dictionary most frequently; the most to be condemned are those who teach error rather than make the exertion to ascertain what is correct and true, and those who are disinclined to consult authorities before pupils, fearing thus to expose their fallibility. Not only should the teacher make frequent use of this book for himself,—he should teach the school the value and the use of this important work, assured that the lessons he imparts and the habits he thus inculcates, will be of use to the members in all subsequent life.

239. The *teacher* should refer to it in all cases of doubt and require the pupils to do the same. Pupils should be encouraged to write in a note book for future investigation, all words or expressions about whose spelling, pronunciation, or correctness they have a present doubt. (*a*) meanings; (*b*) pronunciations; (*c*) syllabication of words, and in advanced classes (*d*), their synonyms which can be found in this book. There are some 2,000 words in English as to the pronunciation of which there are important differences, and a great many of accepted, varying orthography. Preference, therefore, must be given by teachers for the best usage and for the simpler forms.

240. Drills on sounds and the names and uses of the diacritical marks—a subject generally very little understood, except in the North Central States—though these are not necessary to the skilful use of the dictionary. Definite drill on sounds with chart—the teacher should have them written upon the blackboard if he possesses no other "appliances"—will familiarize pupils by eye and ear at once, with the marks and sounds they indicate. Attention should be given systematically to the reading matter at the beginning and end of the book. Pupils are in danger of missing these

laboratories of learning unless made acquainted with them in school. Faithful teachers will not omit the appendices, both for what is curious and useful to the pupils and themselves.

241. It is a fact, too well known for recapitulation, that applicants for a teacher's certificate are woefully lacking in the triple subject of orthography, orthoëpy, and etymology. There is no excuse for this, as a strong elementary acquaintance may be made with these studies at a slight cost,* and a thorough knowledge of them tends to increased excellence in other and advanced branches.

242. In the closely crowded school-room, and such is frequently the condition, especially in district schools, the opportunities offered for "communicating" are increased from the nature of the exercise. Additional watchfulness on the part of the teacher, accompanied by an instantaneous punishment of this violation of a presupposed rule or law—unwritten or expressed—is the sole remedy. The form of punishment should be a removal from the class and association with it for the instant, followed by a marking of demerits and such remarks at the close of the recitation as show the hurtful and immoral tendencies of the act of transgression.

243. First, the simple spelling or reiteration of the letters of the word; second, the proper division of the word into syllables; third, the marking of the letters diacritically; and, fourth, the proper accentuation of the word. Though objection is offered to the repetition of the syllables in oral spelling as in innocent: in-*in*-no-*no*, *inno*, etc., it is the testimony of many able educators that such use secures better articulation, pronunciation, and spelling. It certainly cultivates the habit of carefulness, a very desirable quality in the pupil.

244. They should be taught incidentally (both in spelling and reading), but not until pupils are perfectly able to take this work, and in a third grade—or class corresponding—and above, they should be taught the diacritical marks and their uses.

245. 1. Omit *a* from the diagraph *ea* when pronounced as e short, as in hed, helth, etc. 2. Omit silent *e* after a short vowel, as in hav, giv, etc. 3. Write *f* for *ph* in such words as alfabet, fantom, etc. 4. When a word ends with a double letter omit the last, as in shal, clif, eg, etc. 5. Change *ed* final to *t* where it has the sound of t. as in lasht, mixt, etc.

246. By a thorough drill in the distinct science of orthography, united with a knowledge of phonetics, accentuation, and elemen-

* *Dime Question Book*, *No.* 15, of Orthography, Orthoëpy and Etymology.

tary etymology. The means for acquiring a knowledge of this are placed within the reach of every teacher at a very slight cost.

PSYCHOLOGY.

247. Most assuredly. That knowledge of human nature, and more especially of child nature, is one of the prominent characteristics of a successful teacher. It aids in imparting instruction, in securing attention, and in exercising easy control over the pupils. The psychological principles which apply to the work of teaching are the following: 1. The intellectual faculties are distinguished from each other in the order of their development. 2. The activity of the higher powers is conditioned upon the activity of the lower. 3. The mind tends to act again in the same way, or in a similar way to that in which it has acted before. 4. The mind naturally proceeds from the specific to the general; from the concrete to the abstract; and other relations which are but a repetition of Pestalozzi's laws.

248. This, and moral philosophy and psychology, should be studied by the teacher who desires to attain prominence in his profession. There are small manuals* upon the subject readily obtained, and though the subject may be "dry reading," the sooner it is recognized by him that there is a Science of Education founded upon mental laws, and that the way to true success in teaching can only be found by a close study of that science, the sooner and better will he be placed upon the royal road of well doing.

249. The source of many evils and errors in school-work. Many cases of indigestion, of nervousness, of general weakness —though this additionally, comes under the head of physiological knowledge—even of apparent backwardness of intellect, are due to insufficient out-door exercise and *premature study*. Children vary greatly as to the age at which they begin to bear restraint on the freedom of their movement, and strain upon their attention. Mill may have begun Greek at four, but Hunter did not know his alphabet at seven. So, too, we violate a principle of pedagogic ethics, if we begin arithmetic by teaching the child to count, orally, 1, 2, 3, etc.

NATURAL SCIENCE.

250. In endeavoring to teach science, a method has extensively prevailed which admirably illustrates the process of how not to do it. The student is referred to a book, instead of natural objects, to procure his preliminary ideas in regard to the subject. He is required to accept authority, in the place of making personal investigation. He learns a formula of words, which is said to be a law, or rule, or definition, when he is utterly ignorant of the facts upon

which the law or rule is based, and of the knowledge embodied in the definition. The whole performance is a substitution of apparent for real knowledge, and, whether resulting from ignorance or design, is a practical fraud, by which not only are time and labor lost, but the mind becomes so deteriorated as to be unable to distinguish between the spurious and the real, the false and the true.

251. As it makes us acquainted with our environment, with the relations of our surroundings to ourselves, and with all the conditions necessary to be observed for the preservation of our own existence, a neglect of the truths taught, entail upon us disease, suffering and death. An intelligent comprehension of these truths enables us to avoid, in a large measure, the causes of disease, to diminish suffering, and to prevent the premature termination of life.

252. It infuses vigor and mental action upon the part of the boy or girl. In the district school a five minute "talk" can be given upon the rudimental facts in general science, and this, supplemented by a "query box," has never yet failed as an element of popularity, interest, and increased strength in the school and its progress. David P. Page, in his *Theory and Practice of Teaching*, gives a most interesting sketch of a lesson upon an ear of corn, under the suggestive title of "Waking up Mind." This work was first published in 1847, and the lesson in question was one of the first expositions of the nature and value of object-lessons even made in this country.

253. It is probably the case that much work done in the schoolroom is of a fragmentary character; that although it arouses the attention and trains the observing powers, it often fails to show the relation of one lesson to another, and to give that connected chain of thought that scientific reasoning will.

254. Without a text-book, even the teacher should be able to impart instruction in the applications of this science apparent in the familiar operations of every-day life. The management of household tools and implements; the circulation of water and the principles of hydrostatics and hydraulics; the gaseous operations in the admission and the egress of air, in warming and ventilating, and in the use of coal-gas for illumination.

255. A certain amount involving a knowledge of the corroding effect of acids and of alkalies, the solvent action of spirits of wine and of oil of turpentine for varnished surfaces that are unaffected by water, the protection of dresses and of furniture from dangerous chemicals used in household work; as well as many things connected with washing, with cookery, and with the keeping of household stores. Life may be saved by simply knowing that lime

thrown down an unused well or opening, will destroy the fatal carbonic acid gas by converting it into carbonate of lime.

PHYSIOLOGY.

256. Physiology has been much neglected, but this assertion does not apply to the schools of the fourteen states where this branch of study is required by law in examination and teaching—though in some of these it is the result of very recent legislative enactment—but in the rest it is almost an unknown factor in education. Many graded schools and some district schools, in which Algebra, Physical Geography, Physics, and other advanced branches are taught, do not have "the science of the body" enrolled in their list of studies.

257. Those embodied in practical measures as to the need of pure air, sufficient and wholesome food, alternation of rest and exercise, the dependence of the mental powers on bodily conditions, and the sanitary conditions of the school-room, with their influence upon the mental and moral natures of the pupils.

258. The very simplest explanation of how we live, explaining the uses of the heart and lungs, locating and naming some of the principal bones, arteries, etc.; with particular lessons, lectures or talks on exercising care of the eye and preservation of the general health. In advanced classes, the subject should be studied by means of blackboard outlines. Experiments by the teacher are necessary in practical illustration.

259. Even if he does not teach it nor expect at any time to give instruction in this *deeply interesting* study, he will gain a knowledge of its application to the pupil when to induct him into the use of a certain study. For instance: Anatomists tell us that the brain grows with great rapidity up to seven years of age; it then attains an average weight of forty ounces (in the male). The increase is much slower between seven and fourteen, when it attains forty-five ounces; still slower from fourteen to twenty, when it is very near its greatest size. Consequently, of the more difficult intellectual exercises, some that would be impossible at five or six are easy at eight, through the fact of brain-growth alone. It often happens that you try a pupil with a peculiar subject at a certain age, and you entirely fail; wait a year or two, and you succeed, and that without seemingly having done anything expressly to lead up to the point; although there will inevitably be, in the meantime, some sort of experience that helps to pave the way.

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*Allen's Mind Studies (50 c.), Welch's Talks on Psychology (50 c.), Welch's Teacher's Psychology ($1.25). are published by E. L. Kellogg & Co.

260. There is, states a leading authority, a movement all along the school line upon the subject of hygiene. School houses are overhauled, and any infringement of sanitary laws mercilessly exposed. The proper directions for seating pupils with reference to light, the floor, space, and air supply of rooms, the sanitary conditions of play-grounds and out-buildings, the limitation upon study and study hours, all these are the preliminary steps of investigation. The physiological conditions of the pupil are the groundwork of the discussion. "No theory of education is satisfactory that does not claim the whole child." How to get the greatest possible good with the least possible harm out of school life, for both mind and body, is the present problem in education.

261. Where in use it seems to have been generally regarded as somewhat of a useless complement or as an occasional supplement to other studies. No attention has been given to its purpose as a "moral factor" in teaching boys and girls the right knowledge of its practical application to the daily needs of life, and of the evil consequences arising from a neglect of an observance of the laws of nature.

262. Every teacher in whom there is a spark of patriotism and righteous care for the children in his charge, must see the necessity there is that they should not only be warned against the evils of intemperance, but taught to despise alcoholic drinks and stimulants, and narcotics of all kind. The lessons should be given both directly and incidentally as the occasion is offered.

263. *What to do in case of accident.* The power to be able to act promptly and rightly in case of an emergency is one of the grandest ever given to mortal, and a youth may be taught this important knowledge.

264. Children should not be allowed to grow up in ignorance of the most important health requirements. But there is a prevailing lack of knowledge of the subject everywhere, at present. Men and women whose views on other subjects are given with a meaning, the result of earnest thought, on questions of hygiene, show a degree of ignorance which, to the professional man, would be ridiculous.

265. This is a practical demonstration of physiological knowledge that receives attention in our larger cities and towns, principally from the fact that suggestions made by the superintendent, and rules adopted by the board of education, bear directly upon the observance of such attention on the part of the teacher. But in many of the smaller towns and villages teachers never give a thought to the health and comfort of the children committed to their care.

266. As even many of the larger children do not realize the importance of putting on their garments before leaving the room, but will often defer "wrapping up" until the open air is reached, or hastily arrange them while passing out of the building, it is the teacher's duty to see that sufficient time is allowed for the putting on of overshoes and all other "protections" that have been provided.

267. To teach well requires a sound body. This is one of the first requisites of a good teacher. *Mens sana in corpore sano* ("A sound mind in a sound body") is a well established axiom. Though it is not necessary that he should be a practical gymnast or a teacher of physical culture, a knowledge of calisthenics should be his, and a few minutes' drill in this mild exercise will create a feeling of rest, vivify the sluggish and apathetic nature of your pupils on a dull winter's afternoon, and cause them to turn to their studies and recitations with renewed interest.*

268. "If properly directed," says Dr. Austin Flint, Jun., of New York, himself famous for his fine physique, "gymnastics will enlarge and strengthen the muscles of the trunk, legs, arms, and neck, will expand the chest, so giving the lungs free room to play; will render the joints supple, and impart grace, ease, and steadiness of carriage, combined with strength, quickness, and elasticity of movement."

269. The usual plan adopted is to open the windows or swing back the door. Sometimes this is the very best and the only thing to do. Our school houses all over the land need better ventilation —automatic, if possible—that is, such as will regulate itself.

270. Yes; into a few of our new and expensive buildings improved methods are being introduced, and generally in connection with the heating. The favorite plan has always been to have in use a movable bound pane of glass swinging on hinges. There is no chance to allow the airs of heaven to draw through the mental warehouses, or tight brick walls of the old-time school-house in village or town.

271. When there would be danger of a too sudden cooling of the room, or the making of a dangerous draft by opening doors or windows, then the following plan can be used: Raise each window about six inches, and in the open space beneath the sash fit a plain board, leaving it short enough to be removed at pleasure. Upon this let the lower sash rest.

272. This simple expedient is already known to many, but its ventilating capacity can easily be more than doubled by a simple

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* Ballard's School Gymnastics (50 c.), published by E. L. Kellogg & Co.

modification of it, not so widely known. Thus, where more air is wanted, but a direct horizontal draft from the bottom of an open window is objectionable, then fit the board into vertical slots fixed to the window casing, a few inches from the sash and resting on the sill.

273. It is necessary, as nowhere else will the majority of pupils receive the necessary attention. Within the past few years great attention has been given to the development of the child's physique in the schools of many of the "centres of wealth," and with much benefit. There is, of course, still a feeling of conservatism among school committees and directors. The proper teaching of physiology in connection with physical culture, can not but be attended with the best results.

274. As a form of life, primary instruction may be given in botany, of so-called "plant lessons." Secure the attention of the child and cultivate its powers of observation, by having them study the germination of little sprouts, and notice for themselves what has taken place. Question them of the number of parts they may find, where one part has grown, of its name, tell them of the stem and leaves, give them seeds, and instruct them upon their divisions. Explain to them how the little plant gets its food, and how it obtains it from the earth. Illustrate by having some very small pieces of sponge tied to strings and the strings tied together, and dipping the ends in water, show how the sponges suck up the water. A first lesson in capilarity.

275. In the country school. Learn the names of every wayside flower, both botanical and provincial designations, and teach them to the little folk, who will remember such instruction longer than their arithmetic or grammar lessons; will gain as much discipline in learning it, will enjoy it better, and will be none the less proficient in other studies because of this systematic diversion out of school.

276. There are books now published that enable one to supplement his knowledge of plants, and if he or she or both will begin with the wayside flower of the early spring they can grow with its growth and multiplicity without apparent effort.

277. When the air of a room is as pure as that out of doors. To accomplish this result, it is necessary to allow for each person eight hundred cubic feet of space, while ventilation is going on in the best manner known.

278. The careful use of all means tending to his own health while watching for myopia, color blindness, the stooping posture, weak chests, and sinking shoulders among his pupils.

279. As injury from burns are very common, every child should

know what is to be done. It is found that after a large burn the blood becomes thick and does not flow. As this results from the absence of blood-water, owing to its rapid exudation from the inflamed surface, the treatment should be to arrest this flow, and soda and water put on. It may be used spread on like a cloth. Soda not only removes the pain, but helps the formation of new flesh.

GEOGRAPHY.

280. Because he can comprehend that which he can see better than that which he can not see, and you can give him an idea of the general surface of the earth by showing him particular portions of it. Also, it is of more importance that he should know his own locality, than it is for him to know all about countries "across the sea," and yet be ignorant of his own immediate surroundings.

281. By a drawing on the blackboard, or by calling its attention to a carriage or wagon coming or going over the hill. If you have no blackboard (a condition of "things" that we trust does not exist, although there are some miserable substitutes), or there is no hill, explain to him with as simple an apparatus as a pencil and an apple.

282. This may be made one of the most *useful* pieces of school furniture, and it may also be made one of the most *useless*. To be the former, it must be to the pupil a *picture* of the earth. If he thinks of it as a globe of wood, it will be of no more benefit to him than any other piece of wood. The ecliptic must be clearly seen, and its relation to the equator, the axis, and the poles, fully understood. The relation of the axis of the globe to the ecliptic and the sun—explaining the cause of the change of seasons—must be known. The relation of the revolution of the globe to the sun, producing day and night, must be clearly seen. The globe should be made to reproduce in imagination all the motions of the earth; in other words, it must be the real earth in miniature. Charts descriptive and geographical, and a tellurian are useful auxiliaries here.

283. That of retaining the pupil's interest. The study of the continent of Asia may be irksome to a pupil who has little or no knowledge of geography, while the study of the township or county in which he resides may be to him a source of great pleasure.

284. It is to be remembered that much more opportunity is offered for oral instruction in the lower departments of a graded school, than in simply a building of one or two rooms. The purpose is to have the pupil when the name of a country or product

is mentioned, to go in imagination to that region, and not to the side of some map on a certain page. Taking a primary class by surprise and asking them to point to the north, they will, in many instances, point to the ceiling, for that the top of the map is north has become a habit.

285. It arises from the fact that even among the leading pupils there is a habit of referring everything to a map, that leads to unavoidable errors. The ordinary boy or girl will frequently decide that Paris is west of him, because it is on the left side of the map.

286. The approved way is by drawing the picture of the school-room, the yard, town, city, etc., and then by the moulding-board go on to form and illustrate the continents.

287. After securing loam—moulding sand from the foundries is preferred—moisten it sufficiently and just so much that it will not stick to the hands and yet retain the form given it. Take for the first trial, South America. Let five or six pupils go to the moulding-board while the rest of the class stand near to suggest and criticise. Direct the pupils, letting them use their hands, or flat pieces of wood, to put the loam on the board into such shape as will represent the outline and surface of the continent. Let the pupils work, and if, after a while, the lesson lacks point, suggest what to do, and even trim the outline here or there, or change the surface. For aid have a wall map before the class all the while, and use also the relief maps as found in Appleton's, Swinton's, Maury's, or Monteith's Geographies. The first trial may not be very successful, but practice will cause the pupils to improve, and after two or three trials, a fine model will be produced. When moulded, lay pieces of colored worsted upon the moulded continent for rivers, and round pieces of paper for the cities.

288. From the earliest moment. Primary classes can be trained in this useful adjunct, and a rapid development of the drawing faculty is most always seen in the higher grades. When pupils can draw most excellent maps, accurate in outline and artistic in design, *from memory alone*, the highest perfection of geography instruction has been reached.

289. It is the method of some of the best teachers to discard their use entirely for the first two or three years. They make the sun the object of reference in reality. Having made the pupil discover where the sun rises, they take him in imagination on board an ocean steamer, and sail seven days and nights toward the rising sun until he is shown a new land—Ireland or England.

290. The direction of east and west naturally from the rising and setting orb of the day. The north can be found by observing

their shadows at noon, and better yet, by becoming familiar with the position of the north star. In all this primary work, the imagination has had full swing, and best of all, the habit of referring everything to its proper place on the earth's surface, and not to some page or spot on a map, has become fixed.

291. As they find it difficult to understand the measurements well enough to copy a map from the board, a text-book should be given them. If it is inconvenient or impossible to furnish them with a geography containing suitable maps for drawing, the teacher will find a writing pad a great blessing. Drawing the map, measuring always by the inch, they ink it, place it upon the pad and print off as many copies as are needed.

292. That of their immediate surroundings, the townships, counties of the State, and State. Some teachers have introduced this exercise by having the children draw a map of the schoolhouse, calling upon them to make the necessary measurements and to copy the map after it is drawn.

293. The class is divided into companies of four, and each provided with a large board, a basin of sand and some sticks with which they build a representation of the school-house and the fence around it. The pupils are sent after twigs of pine to put in for trees, and whenever a dispute arises as to the location of anything, one is sent out to investigate. It will be a *noisy* exercise, but full of practical interest to the children.

294. Taking the next district in a similar manner, telling them about the school officers, and placing a list of their names upon the board to be copied by the pupils, as well as the name of any hill or creek that may be in the district. Succeed this by a description of the town or township and county, etc.

295. Two days may be allowed for the drawing of the map, and one for the copying of names. The class exercises consist in learning the directions and locations, "talks" about the resources and occupations, and in connection with the State, something of the history of it.

296. To illustrate by a veritable class recitation, the pupils are studying the shape, surface, and general features of the continent of Australia. One of the class is appointed to act as a scribe, and write out the facts as learned. The pupils are supposed to have read their books, and are now up for examination. On a table before the class is a pile of brown moulding sand. The first step is to spell the name Australia.

297. The study of the shape of Australia, its surface, mountain ranges, and plains, is performed entirely with the moulding sand.

Each pupil volunteers a fact concerning the matter, and illustrates it in the heap of sand.

298. If there is a mistake made there is a vote taken to see if the majority of the class can correct the error. Every subject in geography is illustrated on the table. The child is not told to read in a book that "an island is a portion of land entirely surrounded by water." These children are given a lump of clay and instructed to make an island of clay on the table, and then cover the top of the table with water, to show that the island is really surrounded by water.

299. In a lack of being sufficiently practical in their methods of instruction. The leading facts and terms of descriptive, physical, and mathematical geography can all be learned within a few miles of every school-house in the land.

300. Never. Pupils have been taught to memorize indiscriminately, and without any appreciation of the meaning involved, whole pages pertaining to distant countries which they never expect to see—possibly *hope* they never will—while they are kept in profound ignorance of the natural, historical, political, social, commercial, religious, and educational facts and statistics of their own township, county, or State.

301. Mathematical geography; for by the knowledge we obtain of the earth in its relations to the other members of the solar system, we are enabled to form clearer conceptions of the laws that govern terrestrial phenomena.

302. Use a copying-pad that will give forty or fifty copies. Draw a map—the State of California for instance—and mark rivers by letters, and twenty cities by figures. Designate the coal, gold, and mineral sections. Give a copy to each pupil and have them recite by calling the numbers, and answering by mentioning the name of the place, and *vice versa*.

303. Copy off the most common words, cut in slips of five or six, and give them out to be copied and marked with accents, diacritical marks, syllables, and have them formed into sentences. "Games" may also be used, under judicious management, by giving for instance, the word "*Naples*," and having the class in a blackboard exercise, form names from the succeeding letters of the word, with their location, etc., producing, in fact, a geographical acrostic. This may be varied by having ten words, commencing with the same letter, given to the pupils, allotting the successive letters of the alphabet to the different members of the class; having them find—"hunt up"—the words commencing and ending with "a," "e," and "o."

304. The teacher assigns the lesson, probably a half column of

map questions for review. For instance, on the map of Africa, the cities, capes, lakes, rivers, and mountains are given as the subject. All must be learned alike—committed to memory. The pupil must be able to tell in what part of what country, and on which side of what river each city or town is situated. All are of equal importance. Derr or Magadoro, is of much significance as Cairo or Liberia. They must also learn from what part of what country, into what water, and in what direction each cape projects. Cape Lopez is equally as important as Cape Verde or Good Hope; and so on through the list. The situation and outlet of lakes must be given; the source, direction, and outlets of the rivers, and the *exact* situation of every mountain peak, or situation and direction of every range.

305. During the class hour, she sits at her desk with her book open before her, one index finger carefully keeping the place in the column of questions, the other industriously racing around over the map, like a hound hunting a lost track, trying to find the place, in order to be able to say "right" or "wrong" when it is located by the pupil. This gives the latter an excellent opportunity to take a peep at a concealed book to refresh his memory. Thus the whole list is asked in the exact order of the book—not one place omitted. The next lesson is assigned (probably the same one over again), and the class is dismissed, apparently as well satisfied with the performance as the teacher.

306. It is hardly possible that it is of benefit; at least, a magnifying glass of very great power (with the mental addition) would be required to discern it. It is a very *easy* way for the teacher (?) provided she be not easily embarrassed by the long silence necessarily following some of the answers, before she can say whether they were correct or not. True the memory is being cultivated and stored with facts (!) which may sometime in the dim distant future be useful.

307. One differing from that already given by the simple addition of having only the most important places learned—the others being omitted or recited with the book before the pupil as well as the teacher. In neither of these methods is the outline map or globe brought into requisition. The class usually manifests great interest in trying to invent some "side show" to prevent old Morpheus from spreading his balmy wings over them.

308. Select from the list the places that are most important from a commercial or other standpoint, arouse the interest of the class by giving a short description of some city, or of a noted structure in some country—*e. g.*, the pyramids of Egypt, or the ruins of Thebes, or the great Suez Canal, the Kremlin of Moscow with its King of Bells, the Bank of England, Leaning Tower of

Pisa, or the Brooklyn Bridge—encourage them to learn from the Encyclopædia, Pronouncing Gazetteer, books of travel, or other sources, interesting descriptions of the people, products, animals, and "curiosities," the origin of names, and the "history and romance" of the country. In the recitation, the pupils are encouraged to tell what they have learned about the places mentioned; one pupil is sent to the outline map, pointer in hand, to indicate the places designated.

309. By the introduction of map-drawing. When the lesson is assigned, the teacher draws the map on the blackboard, taking the pupils on an imaginary voyage as he draws the outline, marking the principal gulfs, bays, capes, and cities along the coast, as he comes to them, stopping occasionally to throw in a lively description, to retain the interest of the class. When the coast is completed, a journey is made through the interior, locating in order the principal cities, rivers, lakes and mountains.

310. Not more than fifteen or twenty places are required to be learned for one lesson, as the teacher considers a little well done better than a larger amount poorly done. The pupils are required to draw the map on their slates, and bring to the class three or four times before finally putting it on paper, for which a prize or extra credits are offered. *Map-drawing from memory* is a subsequent exercise. This is varied by having the whole class engaged on the same or different countries, states or divisions; or while three, four or six, are sent to the blackboard, others recite the lesson, one being sent to the wall-map to point out the places.

311. A little time—five or six minutes—is always taken at the beginning of the recitation for a rapid review of previous lessons. At the close of the recitation, and before assigning the next lesson, a few minutes are allowed for criticising the maps that have been drawn on the blackboard, and grading. Some of the best maps drawn on paper are used for ornamenting the room, by tacking them up on the wall, or better, by putting them in rustic frames and hanging them up around the room, to be exchanged for fresh ones of superior merit, as the original become soiled from dust and age.

312. Relief maps or models, the best material for which consists of a thorough incorporation of the requisite amount of linseed oil with pure Spanish whiting; in other words, good putty of the right consistence. The plastic material rolled in the hand, is laid of suitable height to represent mountains and plateaus. The valleys, rivers, and lakes are then excavated, and the model is ready. To represent snow mountains, either plaster of Paris or zinc white may crown the summits. A mountain can be shown

to be an active volcano by a small amount of dry vermillion placed in the crater.

313. With a short camel's-hair brush, the various colors are dusted on, to represent the geographical features, employing, if desired, for easy remembrance and harmonious succession, the colors of the rainbow; various shades of red (with orange) characterizing the Paleozoic formation; of yellow (with green), the Mesozoic; of blue (with purple), the Cenozoic. The Plutonic rocks (granites, syenites, porphyries) can be well imitated by black, white, and reddish dots on an appropriate ground, metamorphic rocks by longitudinal striæ on suitable ground, as blue for clay slates, greenish for talcons, yellow for mica slate, etc. The igneous basalts, trachytes, etc., are represented by the shades of brown, the newer volcanic being of the lighter varieties.

314. The ocean is made, upon the planed surface of the board, by using oil with chrome green, and the lakes, oil with some blue. Sandy deserts are easily imitated by dusting fine sand over the putty, while moist. This system is in practical use among the pupils of the schools of some Western States, and is attended with the greatest success.

315. Astronomy, which is, more than any other science, valuable to the youth. "None will seize so strongly and fully upon the youthful mind. It hardens the body, sharpens the senses, practices the memory, nourishes the fancy with the noblest images, develops the power of thinking, destroys all narrow mindedness, and lays an immovable foundation for faith in God."—*F. G. L. Greszler.*

316. Placing the word "Races" on the blackboard, for instance, have the pupils define the term, and tell why it is applied to the different division of man. Let them tell where they are chiefly found, the features, characteristics, etc., of each race in an oral recitation. Having written the outline on the blackboard, take up the classes, needs, and occupations, throughout the topic.

317. To the fact that distinctively English names have but a slight penetration beyond the Atlantic coast, except in Canada. The French follow a well marked line up the St. Lawrence and down the Mississippi. Dutch and German names give local color to the Hudson Valley and parts of Eastern Pennsylvania; and the Spanish have a broad occurrence in the far Southwest. Indian names occur everywhere, from the euphonious Minnesota to the doubtful Tuscaloosa and the abrupt Oshkosh. This location "of place-names" or the study of "geography below the line" is full of interest to teacher and pupil.

318. Canada and the Provinces are on the sixtieth meridian (60)

west of Greenwich; Maine to Florida, Ohio to Alabama, and the Lower Lakes, on the seventy-fifth (75); the Mississippi and Missouri Valleys, the Upper Lakes and Texas, on the ninetieth (90); the Rocky Mountain Region, on the one hundred and fifth (105); and the Pacific States and British Columbia, on the one hundred and twentieth (120). The names of the "time" are respectively *Eastern, Atlantic, Valley, Mountain, and Pacific.* It is perhaps the most important change that has taken place since dollars and cents were substituted for pounds, shillings, and pence. Where formerly there were fifty-three different standards of time, there are now five, and these arranged so systematically that each standard is only one hour slower than the time of the next section east. It was generally adopted throughout the United States on the 18th of November, 1883.

319. History, and the two ought never to be separated. The former is place; the latter, events. Events without place are merely stories. Place without events is simple emptiness. Events imply places, but place alone means nothing. History includes geography, and, when well and properly taught, gives the best and most lasting knowledge of the latter study. Geography, pursued by itself, is one of the most sterile of studies, as it affords little mental exercise save to the memory, and upon that it makes no lasting impression. The use of maps is, like the use of the dictionary, a life-long need of every intelligent reader.

HISTORY.

320. Lessons in this study should be assigned by topics, and not by pages. All verbatim recitations of sentences and paragraphs should be strictly forbidden, and the pupils should be required to state the facts in their own language. An objective representation should be given by means of maps and charts; drawings and diagrams should be placed on the board of all the important matters in the history of the nation.

321. By topics and outlines. It can not be taught successfully on the *memoriter* plan. The leading purpose should be to awaken an interest in the study that will induce pupils to read extensively, and enable them to classify and arrange historical events and facts so as to be easily remembered. They should be required to give narratives in their own language and not in the words of the text.

322. Principally, by supplementing instruction on the part of the teacher. Information outside of the text-book will gradually be seized upon with avidity, and a hint from the teacher will result in pupils preparing themselves with pass books or memorandums, in which they will "note" the more interesting facts. Unfortun-

ately, errors in text-books of history are the rule and not the exception.

323. By reference to encyclopædias, dictionaries, gazetteers, and other works of established *authority*. Smaller books* have been prepared for this especial purpose, in which statements are made from a personal knowledge of the geography and typography of the scene of the event and the description taken as given by eye-witnesses, or in more ancient times from the traditions of the people, or from the writings of the first relator of the event.

324. The leading events in U. S. History, with their dates, may be given to the pupils in a series of talks of which every "live" teacher will avail himself. The means to be used are the blackboard and the slate. Occasionally, insist upon their making a memorandum of some special date. A daily drill with a review of previous lessons will accomplish wonders and give the pupil a most thorough preparation for the study of the text-book.

325. Nothing else that is taught in the public schools has so much to do with forming characters as the reading lessons. Especially is this true of the prose lessons in biography, in history, and in eloquence, and of nearly all the poetical pieces found in the well-edited readers. The teacher of a reading class, therefore, may be a moral teacher in the best sense of the word; almost, without appearing to do so, he can inculcate patriotism, truth, honor, reverence, and most of the moral virtues.

326. Such a knowledge of history as can be given to the lower classes in school as well as to those more advanced, will awaken in the pupil a desire to read such books as will not poison their minds by bringing on that mental intoxication produced by the trashy literature of the day.

327. By making full use of biography and such selections as have a historical connection with the subject. Your class will hardly fail to respond with feeling to a well-given reading of *The Rising*, by Thomas Buchanan Reid; *The Landing of the Pilgrim Fathers*, by Mrs. Hemans. Extracts from Bancroft's and Hawthorne's account of the Boston massacre will give your pupils a vivid picture of the "lobsters" who entered the quiet streets and brought with them riot and death. Have them read *Sheridan's Ride* when they reach that part of the history that calls for it—and also the story of *Barbara Freitchie*. Then, there is *Stonewall Jackson's Way*, etc.

328. It is probably best to retain it for nothing else than a work of reference. Outlines and topical analyses can be formed from

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* *Quizzism; and its Key.* "New. Edg. Pub. Co.," Boston. Price, $1.00.

its contents. The one grand purpose is to turn the attention of the pupil to biography, which has well been termed "the soul of history." Youth turns to it by an instinctive proclivity, preferring it to other channels of literature, and by a fortunate coincidence it is the one effective medium through which the ethics of history can be placed in bold relief.

329. Systems of mnemonics, by which is meant the method of recollecting facts by associating them arbitrarily with some order of letters or characters, are generally not to be recommended, for when the *effort to remember* is over, the whole system is liable to go with the fact. The law of *natural* association is the one to be followed.

330. Additionally, to those given in one or two manuals* published, relative to dates, other forms can be used, such as are given in these rude sentences, to recall the order of Presidents. "Washington and Jefferson made many a joke. Van Buren had trouble plenty to find poor bank-notes. Let Johnson go home greatly agitated." Here the initials of the words in order represent their names; or Washington, Adams, Jefferson, Madison, Monroe, Adams, Jackson, Van Buren, Harrison, Tyler, Polk, Taylor, Fillmore, Pierce, Buchanan, Lincoln, Johnson, Grant, Garfield, Arthur. Some additional word may be added to the sentence, representing Cleveland.

331. By fixing the events, which occur at certain dates, so vividly in the mind, through the medium of instruction, relation, or reading, that the dates will be memorized as a matter of secondary importance.

332. Never make the history lesson a reading exercise. This obsolete usage is, unfortunately, too frequently in vogue in many of our common schools. The study or the progress of civilization, the growth of a nation or the accomplishments of individuals and the relation they bear to existing state of things is one study; the trial of giving expression to the sentiments of an author, in his own words, with all that is contained in the idea of "vocal culture," is quite another.

333. The wise teacher will remember that a pertinent anecdote, judiciously told, will frequently do more to impress an historical fact than twenty stereotyped questions that might be asked during the same time.

334. With larger students, never use a uniform text-book. Place the topics for the following day's lesson on the board to be copied on paper by each pupil. In the recitations, encourage discussions as much as possible. If the class be a large one, convert

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No. 5 (General History), Dime Series, with Original System of Mnemonics.

the entire recitation into a debate, dividing the class into two divisions, and appointing leaders for each.

335. When prominent dates occur, place them upon the blackboard. Call attention to them frequently and use them for monthly reviews. Do not insist, however, upon the pupils retaining all the dates; it not only consumes valuable time but is the principal source of the complaint that the study is "dry."

336. It is in harmony with the thought that all instruction is a comparative failure that does not induce much of reading beyond the necessarily skeletonized school text-book, however high the per cents. may be that are secured in such text-book. Many schools offer additional credits to the pupils for the reading of Plutarch's *Lives*, and a corresponding per cent. for any biography of ancient distinguished men by the Abbotts or any other authors, and sketches of Shakespeare's *Julius Cæsar*, *Coriolanus*, or *Mark Anthony;* Herodotus; the historical works of Miss Yonge, Arnold, Merivale, Mommsen, and fiction such as the *Last Days of Pompeii*, *The Victor Vanquished*, *Hypatia*, etc. In American history, the pupil is induced to read Irving's *Columbus*, and *Voyages of Columbus and His Companions;* Bancroft's *History;* Capt. John Smith's *Generall Historie;* Palfrey's *History of New England*, and a variety of sketches written by the earlier authors of New England and Virginia, to which the teacher may make reference.

337. When a child is old enough to know a forest when he sees one, or to know the building of a house, the condition of this country and the kind of people that lived here before it was discovered by Europeans may be described to him. The fact should be emphasized that there were no roads or railroads, no steamboats, no mail carriers, no books nor newspapers. He may be taught the salient points in the history of his own town, and the origin of its name, the townships, the county, the State, and as soon as he has a knowledge of the geography of his country, the story of the settlements of Virginia and Massachusetts.

338. To cultivate in pupils a desire for collateral historical reading. Whether or not the pupils master the lessons assigned each day, is not in the long run so important as that they form or acquire a taste for the reading of histories. The only limit to the success of this plan is the ability of the pupils to obtain books.

339. The shameful dearth of general information among teachers. It is a very unfortunate fact that many teachers know very little of current history. There are some half-dozen publications, weekly and monthly, that give an accurate record of the political, scientific, and industrial news of the day, and with all this the teacher should keep pace.

340. By a free, full, and judicious use of the "News Bulletin," to which reference has already been made, and the pinning upon the walls or arranging in a case prepared for the purpose, printed items clipped from the papers, of local or general interest. A school can thus be as thoroughly informed upon an Egyptian war, or a tariff discussion, or the progress of the work upon the Panama Canal, as any adult reader. Their interest will also be shown by bringing to the teacher clippings bearing upon the subject and a friendly competition to furnish "matter" for the bulletin, which they should be allowed to enter in their own handwriting. The teacher and pupils should have the mutual right to take charge of this exercise.

341. An exact duplication of that used in teaching literature. The biographical outline of a noted statesman, warrior, or legislator, must necessarily be similar to that given of an author. The topic on a war or wars, or a certain "period" may have its divisions and subdivisions separated by brace connections as in a grammatical diagram, or by using the *exponential system* so prominent in physiological outlines. But this is a mere "form" to be supplemented by a vivifying oral recitation. Its special use is at the examination.

342. That of Civil Government. Teachers on examination fail to answer the simplest questions. A growing demand from examiners, and the expostulations of editors, with the articles from leading educators and newspaper editorials, that the youth of the country should be instructed more fully in this fundamental branch of study, is producing good results, and arousing an interest which has been increased by the recent publication of several text-books upon the subject.

343. A topical outline of "The Senate" and "The House of Representatives" should be presented to the pupil. The necessary qualifications of age and time of residence, their eligibility, and duties of the senator and representative should be firmly impressed upon their minds. Many of our best text-books on history show their realization of the importance of the subject by a set of graded questions in connection with the Constitution, treating of the powers and duties of Congress, the "rights" of each separate branch of the Government, and a definition of the various laws, and the legal and technical phraseology used.

344. That of constant review; and while this maxim applies to all studies, it is of redoubled force in its application to all that pertains to matters of history and government. Nor is the government of your own State, and the work of its legislative, judicial, and executive departments, to be neglected.

345. By having some of the older pupils present, in the form of a composition, the qualifications, duties, term of office and salary of the officers of Government, and have the same read to the school. Select some one to collect from the daily papers the acts of Congress, and him read them to the school, from time to time, in the form of an essay, or as a simple statement. Furnish to them the biography of some past or present noted man, who has represented their county, district, or State in the halls of the nation.

346. It is a wrong principle to delay instruction until near the close of the term or the completion of the text-book on history. Weekly and semi-weekly drills may be given from the first few weeks of school. Do not attempt to teach but a few of the powers of Congress at a time ; have an occasional concert drill upon them, and always precede the lesson by a review. The Preamble to the Constitution is worthy a careful study, and may well be committed to memory.

347. Charts of history and of Civil Government, which are usually supplied in the schools of cities and towns, and occasionally in those of the country. The teacher who knows their benefit and feels the lack of such apparatus, will attempt to supply their *need* by drawings and outlines upon the blackboard, which the pupils may be requested to copy, and ultimately, to present themselves in the same manner. A school festival, a lecture, or an exhibition, may sometimes secure the means to supply the school-room with this useful apparatus.

348. A knowledge of the ways in which acts of Congress become laws ; of the veto power, and who exercises it, then a comparison of the powers of the president with those of the governor ; whether the governor has the vetoing power or not ; the names of chief magistrates of other States ; and finally the names of the rulers of other powers of the earth with their forms of government. Where the sovereign power is vested in the people, the importance of citizenship is greatly increased, and hence there is no other country in which history should receive greater attention than in the United States. It is a lamentable fact that of all the young men who voted for the first time in the presidential election of 1884, not one in ten had studied the history of this country, in the schools.

349. That which leads to the study of historical etymology and philology, and the distinct science of ethnology, for an enormous fund of history is embodied in the language of a people.

350. By reasoning from a variety of objects, pictures, works of art, and relics, such as the old Greek drinking-horn, which while it held from one to two quarts was so made that when once filled it must be drained before it could be laid down, shows the

way that people dealt with the temperance problem. Not only, indeed, has this method created our knowledge of the mound-builders of America and the lake-dwellers of Switzerland, but it has extended our knowledge of people who come within the bounds of modern history.

351. It develops a spirit of patriotism in our people. Let a boy read of the wrongs inflicted upon our fair republic in her struggling infancy, or of the successes she has achieved in her early maturity, and his soul is stirred with feelings of loyalty; he is not only ready but eager to swear fealty to her interests. A knowledge of history may be considered one of the prime requisites of a good citizen.

PENMANSHIP.

352. "The body must always be in a position nearly erect, near to, but never leaning upon or touching the desk. The feet must have a direction corresponding to the slant of the letters. The hands must always be at right angles to one another, or, in other words, an easy, convenient, and healthful position."—*Spencerian Key.*

353. This "neglected art" should receive attention from the first, and the pupil be taught to write as he is to read. "Systems" of penmanship are not to be drilled into the young child. The teacher should be able to write clearly and legibly on the blackboard, and this serves as a "copy."

354. They are benefited in many ways by copying a reading lesson or the literature gems the teacher may have written on the board, and which they should commit to memory.

The copying serves as a good drill in penmanship and punctuation, it teaches the use of capitals, the way to spell, and fixes the lessons in the pupil's mind better than merely looking at it. These are the special advantages of learning to write when learning to read.

355. For primary classes and pupils in the intermediate departments of schools, it is best for the teacher to devise a set of writing exercises that will secure first, free and easy movements; then the subject of shading, and afterward, attention may be paid to angles, height, etc.

356. Never in giving instruction to the younger pupils, and unless judiciously used with the more advanced, the results are the formation of crooked letters, distorted features, and cramped and palsied fingers. In this branch of "work," practice makes perfect. The blackboard is a far better means than the copy-book.

357. In many of the graded schools of the country, town, or city, the writing-books are distributed by monitors, and, at the word of command, the pupils take pen, uncover their ink-wells, open to the day's lesson, and commence to write. This lesson covers a designated period of time. Frequently, the movements are "timed." Similar commands are given at the close, the monitors taking the books and replacing them in a case or rack used for this especial purpose. Seldom, if ever, the teacher passes around to criticise, aid, or suggest. The pupils do not see their books at any other time. This system ensures quietude and a clock-like precision of manners, and that is about all. The teacher grades the lesson at a convenient opportunity, and when "filled," the book is given to the pupil, the best specimens of writing being retained for purposes of exhibition.

358. To advance pupils, attention may be called to the angles of slant and correction, an exposition of "The Nine Principles" may be given, and the similarity of construction of many of the small letters, and the fact that the Capital Stem enters into the formation of one-half of the capital letters; but movement-drills and exercises in forming ovals, continuous circles, and all such combinations as are necessary to secure ease and grace, and make the ready penman, will prove highly beneficial.

359. One excellent method is to prepare the slates by ruling one side of them permanently, by scratching, as copy books are ruled —slates are sold with the lines painted—with equidistant lines and three spaces, or with two lines to indicate the height of the small letters, and a line above and one below to indicate the length of loop letters. Great care should be taken to first teach the pupils how to form the letters. Teach them to draw straight lines; vertical and slanting, equal spaces distant, and one, two, or three spaces high on the ruled slate.

360. Many primary teachers use the method of writing letters occasionally to their pupils and having them reply. For this purpose a "letter-box" should be kept on the teacher's table.

361. That of letter-writing. It is strange that a branch of learning so eminently practical and so indispensable to every one as this, should be almost entirely unknown as a "factor" in our common schools. It is the duty of the teacher to instruct in the superscription of the envelope, the correct placing of the stamp, the address, heading and closing terms of an ordinary epistle. The treatment of the "body" of the letter is a matter of composition, grammar, and rhetoric. Every year the mails are disgorged of thousands of letters containing thousands of dollars' worth of property that find their way to the Dead Letter Office from a lack of

the simple knowledge that could readily and easily be conveyed to the writer.

362. Not having to hold pen or pencil prevents the nervous grasp of the fingers, so difficult for pupils to overcome. Writing with the fingers in the air, as a calisthenic writing-drill, is being brought into practice, and is advocated by some able educators. The use of the crayon at the blackboard, is an agreeable substitute for the pen.

363. Those teachers who would give their pupils a good free-hand writing must use some other means than the copy book. The discarding of copy books is not to be advocated, but supplementary exercises should be given, to teach freedom of movement and give character to individual work.

DRAWING.

364. The development of observation, culture, and the training of the eye and hand. Primary children may be taught to draw the simpler geometric forms, as they are practically by the arrangement of sticks on their desks or the teacher's table.

365. Objects that exist or are to be made. By its means we express ideas that can not be represented in any other way. The most practical instruction is that which requires pupils to first observe objects, and afterward express what they have observed by *drawing directly from objects.*

366. Primary teachers can make excellent use of this creative exercise, which not only aids in interesting the child and develops its "possibilities," but also helps to a solution of the growing demand of the day for a practical education and industrial training.

367. Copying, which must necessarily be the first step, is often a thoughtless imitation of the result of other people's observation. Experience has shown that flat copying alone does not give pupils the power of expressing freely their own ideas; so that, while useful in certain directions, copying should be practiced to a limited extent. If it is impossible to introduce a set of drawing-books into the school, the teacher should purchase for his own use one or two drawing manuals, teach the pupils the laws of perspective, from the blackboard, and then require a drawing of the trees, houses, school-house, and objects of interest about their homes.

368. Lying, as it does, at the foundation of excellence in industrial pursuits, it can not be too carefully taught. The best interests of a free people demand that the daily work of the laborer should be considered in shaping the education of his children,

369. Yes; in degrees more or less advanced. It is not a "special gift" (though naturally, the artist-genius, like the poet, is born and not made), and this popular feeling should be removed from the belief of the young child. Their work must be inspected and commented upon, and in this there is demand for consummate skill.

370. One hour a week, which may be divided into two lessons of one-half hour each, or a still smaller division of time. The length of time spent on any lesson is a matter for the teacher to determine, remembering that it is not wise to linger too long on the elementary ones, as they may be further practiced at leisure moments. Pupils should be forbidden to measure, to rule, to erase lines, except in mechanical drawings. Pencils should be kept in good order; the position of the body, the drawing-book or slate, the holding of the pencil or crayon, should all be regulated by instruction from the teacher.

371. Practice *often* on the blackboard and have the pupils work simultaneously. Desire perfection, but do not expect it; at least, not more than in writing, of which industrial drawing is an extension.

372. In the majority of the graded and high schools of the country, the subject is merely mentioned in the course of study to which vague suggestions are sometimes added, but these are of little practical value to teachers, who, left without any intelligent idea of the object or aim of the instruction, do little or nothing with it. Even with the employment of special instructors, there is no fixed purpose or aim in the teaching, and the system or method is therefore changed as often as there is a change of teachers.

373. Yes; the teacher of the ungraded school will find that from the effort to acquaint himself with this useful art, he can produce very pleasing and beneficial results.

DISCIPLINE.

374. To exclude that which is bad and unnecessary, so that that which is good and necessary may have proper attention.

375. He should rely upon his ability to keep all the pupils pleasantly and profitably employed. If he succeeds in this, little more need be done to secure good order in the school-room.

376. A school can not exist as a school without some kind of government, for it must either govern itself or be governed by a teacher. That teacher who succeeds in making a school govern itself has reached perfection in this line.

377. The pupil should be led to investigate and to think for himself—to be a self-instructor; so the government of a school should be a system of self-government, that the pupil's moral faculties, or sense of right and wrong, may be developed by being called into use. The advantages of a self-supporting system are that the pupils are trained to a feeling of trust and responsibility from manly and honorable incentives, and not forced to proper conduct through fear of bodily punishment or excommunication. The disadvantage of such a system is that through inefficient administration, it sometimes leads to dissolute habits and lawlessness. It is, however, REPUBLICAN in principle, and should be cultivated.

378. That a spirit of trustfulness and reasonable freedom is more favorable to good discipline than suspicion and rigid espionage.

379. What is the secret of school government?

It lies almost wholly in the ability of the teacher to give every pupil something to do just suited to his capacity. This may seem at first sight very easy, but it is extremely difficult, and requires much study and great discernment on the part of the teacher. To assign exactly the same work to a class of twenty pupils is like furnishing the same diet to all the patients in a hospital, where there may be a dozen different diseases under treatment. A successful life usually results from the fact that the successful man found the right thing to do.

380. That kindness must be accompanied by *firmness*. Say to the pupils only what you mean and *keep your word*. Check the first instances of disobedience. It is much easier to prevent an evil than to correct one. If a pupil of whom you are particularly fond presumes upon his familiarity and ventures to take liberties not in accordance with thorough discipline, reprove him. Do it with tact and he will finally admit the justice of your course. Never allow yourself to argue with a pupil on a question of duty; unquestioning obedience must be the rule. It is a fact that stern teachers never fail.

381. By no means. It is generally admitted that the ideal teacher is a person of kindly disposition and generous sympathies, capable of understanding the feelings of his pupils and of appreciating the force of the temptations which cause them to disobey. It is only from a strict sense of duty that a teacher of this class makes use of harsh words or of any means of punishment. Nor can he even refuse to grant any trivial but improper liberties without a pang at sight of the displeasure which his arbitrary words have caused, until he learns by experience the necessity for thorough maintenance of just restrictions.

382. The teacher should remember that motives control children as well as "grown folks." Every boy has a motive for his conduct, and it often seems that that motive is to annoy the teacher. If the teacher has sufficient self-control to ignore the appearance of being annoyed, the boy finds that he has had his trouble for nothing. If, in addition to this, the teacher can get the other pupils to note his failure to annoy, much has been gained.

383. Suitable buildings, freedom from over-crowding, good lighting and ventilation, suitable desks and benches, sufficiency of means for isolating classes, good organization, and a well-constructed order of exercises. These tend to greatly facilitate and promote discipline, but they are not absolutely indispensible, for "good order" has been maintained under the most disadvantageous circumstances.

384. It is a fact that they will derive more benefit from well-devised educational games to which they *do* attend, than from formal instruction to which they do *not* attend. It was the great merit of Frœbel, the founder of the Kindergarten, that he took the pains to ascertain what the primitive natural instincts of children are, and that he devised means by which those instincts might be utilized for the purpose of education.

385. No, never; do not use language which implies that your pupils will desire to violate the orders you give. Threats, so far from inspiring dread, sometimes tempt bold natures to commit the deed which is prohibited. Besides, constant threats are incompatible with that natural affection and confidence which ought to exist between the teacher and his pupils.

386. No. The mistake should not be made of asking your pupils pointedly to obey *your* laws, because you as teacher make them. Better have no published laws, or "rules," as they are more frequently called; but, as occasion demands, appeal to the reasonableness of those other higher laws that will include any petty enactments of your own, as the greater always includes the less. Regulations there should be, but not "*rules*."

387. The chief objection is that it holds out such strong temptation to report incorrectly that the majority of pupils are not able to resist it; hence, a habit of untruthfulness is formed. Again, it is inconsistent, showing a lack of the teacher's interest, duty, and attention.

388. A teacher wearing a new dress, governs more easily than when the dress is threadbare. In a school with new furniture, clean floors, and good walls, days, weeks, and even months, elapse without one word of reproof from the teachers. The influence of

cleanliness upon the order of a school is undeniable, and we all instinctively behave ourselves in the presence of beauty.

389. The question of *tact* is such an all-important factor in all the operations of the school-room that we can not forbear frequent reference to this most desirable quality. The following anecdote will illustrate its use in one special case: "George was told that he would not be allowed to leave the school-room until he had spelled the word correctly. A fiendish look, which the teacher was not slow to comprehend, arose upon his face, as he said to a companion, 'I'll keep her here all night!' A night in a country school-house, with a vicious boy, was not an agreeable subject for contemplation, and the folly of making such a rash threat was apparent. The teacher therefore put her wits to work to gain by strategy what she knew could never be obtained by force. Recess passed with the boy in his seat. Just before closing, the teacher proposed that all should choose sides. The sides were chosen, and, in the excitement of spelling down, our contumacious boy fell into the trap set for him by his wily instructor. Watching for a moment of preoccupation on his part, she gave him the word fawn. 'F-a-w-n,' spelled he, in a distinct voice. The laugh that went round the class convinced him that his hour of triumph was over."

390. Similarly, in the case of a *large girl* who had been obstinate, disobedient, and saucy, the teacher, after lecturing her in tones of courteous sarcasm—he had a most excellent use of language—in such a manner that he won the entire good-will of the remainder of the school, and, consequently, a feeling of opposition to the girl, bade her take her books, stand up, and then leave the room. The evident disapprobation of her companions had completely humbled her, and she showed no hesitation in obeying the last command. Accompanying her to the door, the teacher mildly intimated that neither her parents nor relations would be allowed to interfere in the matter. Meeting her a few days after, purposely, he spoke to her kindly and asked her to return. The girl burst into tears, acknowledged her error, came back to school, and was the model pupil ever afterward.

Prompt, energetic action, in whatever device the teacher may use, is the only absolute rule for the disposition of "hard cases."

391. That of Humor. As the good order and quiet work of some schools is due to the orderly march to and from the playground, so this feature of a teacher's character will aid him greatly, for he that can turn a good-natured laugh on a refractory boy, will secure his obedience far more safely than by punishing him. How can this quality be acquired? With some, naturally, it is innate, and may be further cultivated; but this much one can do—

keep on the look-out for everything humorous that will illustrate the ordinary work of the school-room.

392. To win the good-will of a bad boy is to permit him to do you favors. It shows him that you have confidence in him and can trust him. In some cases, and under certain restrictions, he may be invested with the power of hearing a class recite. The bad boy is very apt to have confidence in himself, and will make an especial effort to retain your confidence in him. It increases his self-respect when vested with authority.

393. The personality of the teacher; voice, manner, and a friendly expression. This is the side of allurement or attraction. The other side is the stately, imposing, and dignified bearing, by which the master can impersonate authority and be a standing reminder to the evil disposed of the flock. It is seldom given to one man or woman to display both attitudes in their highest force; but wherever, and to whatever extent they can be assumed, they constitute a barrier to disaffection and remiseness.

394. He should remember that any prominent displays of swagger and self-conceit operate against his influence, and incite efforts to take him down. Much of course depends upon *tact;* meaning by that, a lively and wakeful sense of everything that is going on. Disorder is the sure sequel of the teacher's failure in sight or hearing; but even with the senses good there may be absent the watchful employment of them. This is itself a natural incapacity for the work of teaching; a teacher must not merely be sensitive to incipient and marked disorder, but he must read the result of his teaching in the pupil's eyes.

395. That quietness of manner that comes not of feebleness, but of restraint and collectedness, passing easily into energy when required. To be fussy and flurried is to infect the class with the same qualities. The teacher must know that any mistake, miscarriage, or false step on his part is for the moment fatal to his ascendency. Such things *will* happen, and they render undue assumption all the more perilous.

396. By two sorts of pupils; those that have no natural liking for the subject, and those that are too far behind to understand the teaching. In a perfectly arranged school—*rara avis*—both sorts would be excluded from the class; but in our district schools, and those in town of but three or four grades, such is the condition, and such it will ever be, and the teacher should accept this known difficulty from the beginning.

397. That the first requisite to successful teaching is ability to govern a school. If a school is well taught, good order necessarily follows. But a teacher, well armed, may have good external order, and do no good teaching. Such order is not "Heaven's

first law." The more perfect the order in a badly-taught school, the worse it is for the pupils. Perfect silence, unbroken stillness, are not in themselves desirable for young children, however necessary for good school-work. Giggling and tittering should be forbidden as unbecoming, but a genuine hearty laugh, indulged in by both teacher and pupils, for a proper reason, may be repeated often with the best results.

398. The seats of individuals of a class will be determined by considerations not always to be made public. In designating seats or grades, do it kindly, yet with the understanding that you know *best* what is to be done. Sometimes they may be seated so as to make a regular gradation of height for appearance's sake, provided no more important principle is sacrificed. Sometimes the unruly ones are placed in front, as a punishment. The privilege of choosing seats may be allowed, with the understanding that retaining them depends on behavior. Rank in class, degrees of cleanliness, known habits, all have a bearing upon this arrangement, which is fully illustrated in Buckham's *Helps for Young Teachers.*

399. By displaying those characteristics that gain their good will. The average boy admires decision. It suggests power, and he is a great worshipper of power. For weakness, either mental or physical, he has only contempt. He also admires courage, and he hates sham, or cant, or pretence. When he detects these in his teacher, they color all the teacher's actions. He has a well-defined code of honor which must be respected, and he admires rigid discipline when it is reasonably enforced.

400. This great point is to be remembered—and it may be regarded as a maxim—that you should commence on the first day, just as you determine to have the term. Any sign of weakness by you is so much more to be overcome. The poise and self-control of the teacher, and the concentration of many minds, control those who are inclined to be restless and inattentive, by a well-known psychological law.

401. Human nature. Many a boy has a "bad name" simply because of the rapidly developing faculties within him that are seeking employment. Juvenile depravity is not the depth of wickedness. Mischief is not meanness; it is misdirected energy. The force of temptation and impulse overcomes his own choice and power of resistance; while the imprudence, ill-temper, or reckless haste of the teacher sometimes prompts him to make an example of such an unlooked-for infraction, lest advantage be taken of it to overthrow good order.

402. It is two-fold, viz.: School vices must be prevented or cured, and school virtues must be cultivated. Among school vices,

as they have been classified, are idleness, whispering, disorderly movements in the school-room, injury to property, and rudeness of speech or act, in the intercourse of every day life. The school virtues to be cultivated are suggested as the opposite of these; regularity of attendance, promptness, obedience, truthfulness, diligence, kindness, neatness, and thoroughness in the preparation and recitation of lessons; and these are to be secured, not only to promote the business of the school-room, but also for their influence in forming habits and character.

403. That of temperaments, and the point which soon impresses itself on a teacher's mind is that there is a vast difference between the character as well as the abilities of pupils. He learns to classify them according to their several characteristics. Thus one class will consist of the slow but sure, the naturally serious, possessing little enthusiasm, but an indomitable will; another will be composed of the bright and interesting boys who dash at their work with Celtic spirit, but who are the more easily daunted and require the more tender care. One type of boy has an innate love of real advancement; the ambition of another is to make a show in the world, to shine in society, to lead a butterfly existence. Some boys are almost consumed with a passion for producing sport; they are the clowns of the school-room; to their minds nothing is so important as a joke. Now, the teacher who sets his mind on eradicating any of these peculiarities must proceed with extreme caution lest he go too far. It is much easier to destroy than to build up; and very often a boy's peculiarities are in themselves harmless, though they may require modification and sometimes restraint.

404. It is afforded by the fact that young and inexperienced teachers find so ready and so general employment. The wise and effective government of the school is really a delicate and difficult work. For, consider how few are the accessible guides to the successful accomplishment of that work; how subtle and often profound are the principles embraced in its philosophy; how varied and perplexing must be its practical adjustment; how manifold the difficulties to be encountered; and how sad may be the results of failure to govern wisely and well.

405. Never show any partiality toward a pupil or set of pupils. It creates dissatisfaction and tends to the destruction of good government. Impartiality on the part of the teacher is one great help in securing discipline. Partiality is discriminality or showing favor without or against just reasons. But discriminality, or showing favor for wise and sufficient reasons, although often thus stigmatized, is no partiality; it is rectitude. Teachers who gain a reputation for being "no respecter of persons," in the sense of

having no favorites, are universally liked, especially in the country districts.

406. Stupidity, stolidity, inaptitude for special studies, vicious tendencies, rudeness, and indolence. The special treatment of these must be a remedy devised by the teacher, guided by the time and circumstance. The *habit of obedience* should take the first place in the school. Many teachers of morality, unfortunately, destroy the good effects of judicious counsel by too much talk, as a chemical precipitate is re-dissolvent in an excess of the precipitating agent. You *must* interest your pupils. The *law of activity governs this.* It is to be remembered that like the ancients we must teach virtue as well as smartness. No good education can be based on mere intellectuality.

407. 1. Neglect to furnish each pupil plenty of suitable seat work.

2. Make commands that you do not or can not have executed. Occasionally, make a demand with which it will be impossible to comply.

3. Be frivolous and joke pupils to such an extent that they will be forced to "talk back." This will "break the ice" and they will soon learn to be impertinent in earnest. Or, be so cold and formal as to repel them.

4. Allow pupils to find out that they can annoy you.

5. Promise more in your pleasant moods than you can perform, and threaten more in your "blue spells" than you intend to perform.

6. Be so variable in your moods that what was allowable yesterday will be criminal to-day, or *vice versa.*

7. Be overbearing to one class of pupils and obsequious to another class.

8. Utterly ignore the little formalities and courtesies of life in the treatment of your pupils in school and elsewhere.

9. Consider the body, mind and soul of a child utterly unworthy of study and care.

10. Ignore what may be called the "tools" of the school-room. Neglect your blackboard, dispense with maps, charts, globe, and dictionary. Above all, keep music away. Let the work as laid out, be one perpetual "grind," so that your pupils shall dread to enter school, and long to get out of it. Be to them simply a task-master, without sympathy or warmth, or consideration.

You will soon lose control, and if the trustee is fit for his place, you will soon after lose your school.

408. 1. Be suspicious of all their motives. When they ask any favor of you, don't grant it on any account, lest some of them might possibly abuse their privilege.

2. When fighting occurs among your pupils, punish all engaged in it with equal severity—the timid boy who was forced into it, in self-defence, as severely as the lubberly school-yard bully who picked the fight for the avowed purpose of whipping him. Give them to understand, in this practical way, that they have no rights which the district ruffian is bound to respect. This rule is of special importance and must be observed.

3. Never seem to believe a pupil unless you *know* his statements to be true. Regard all as liars, and you will soon succeed in making many of them so. It adds also to the importance and dignity of your position to be able to call your pupils liars, on any occasion, without fear of their resenting the insult.

4. When requests are sent you from parents, no matter how reasonable they may be, don't grant them if you can avoid it. Take occasion, in this connection, to say something disrespectful of parents in general and of this one in particular. Give the children to understand, that for good and sufficient reasons, you have suspended the old Jewish rule—"Honor thy father and thy mother." Nothing adds so much to your importance to the eyes of your school as to be able to disregard the wishes of their parents.

5. Be constantly on the watch to find something in your pupil's personal peculiarities that you can ridicule. Remarks in regard to their nationality, the color of their hair, their size, or their personal appearance are especially witty. You can well afford to wound the feelings of the child for the sake of the boisterous laughter it will cause among the others. It should be further stated, in this connection, that mental defects of every kind are your lawful prey. Such playful remarks as that you can not supply this, that and the other pupils with *brains*, or that the trouble with the one is simply *absence of mind*, is a species of wit peculiarly brilliant.

409. Tardiness in coming to school is frequently the fault of the parent. The non-preparation of home-lessons is usually the result of an injudicious mode of instruction pursued by the teacher, and here the simplest remedy is to change the teacher. In our city schools, these difficulties are settled by rules and regulations by which the pupil is suspended, or "dropped," or retained in the same grade for the following year.

410. Tardiness is an evil, but, in many cases, improper means are employed to abate it. To count off a per cent. from the scholarship is wrong; so is a roll of dishonor. Some little device will often reach young children. Have a "warning bell." One teacher had a drum brought in on Friday, and all who had been present and not tardy (unless upon good excuse), were allowed to march and sing, carrying a banner. It was an effective "resort."

A grade losing the least time in minutes during the month, has been presented with a chromo to hang on the school-room wall. The name of the class was written on it, and thus it became a standing record.

411. As far as the pupils are concerned, by making the school-room pleasant and attractive, as any teacher of tact and ability should know how to do.

412. It is sometimes customary to recompense tardy pupils *in kind*, that is, to detain them at the close of the school for a sufficient time to exact an adequate recompense; but this principle is wrong, and it reacts on the teacher. It *is* better to have your opening exercises of such an interesting and enlivening character, that the pupil will feel the loss by not being at school in time.

413. When teachers complain of the general listlessness and stupidity of their classes, let them beware lest the cause of such widespread indifference may lie in themselves, and not in their pupils. Every lesson should be discontinued as soon as the pupils show signs of weariness, otherwise the attention will flag, and that class will have received one lesson in indifference to school work.

414. The adult intellect is sharper than that of a child. The teacher's will-power is, or should be, better disciplined, and, therefore, more forceful; but rarely should he attempt to hammer down the mere brute will of a pupil by his own stronger will. Neither should he use that form of the doubtful method called "coaxing," which consists in gratifying some of the whims of the child for the purpose of getting him to yield the point at issue. "Coax" him, if you must, but let it be of that better sort that *leads* him without his knowing it.

415. As previously stated, that of human nature. Stubbornness frequently arises from an awkward bashfulness, especially in the case with some overgrown boys of backward knowledge when called upon to recite, and this feeling they attempt to hide under a mask of lawlessness and vulgarity. The pupil should be excused before he or the rest of the school imagine the concession to be anything else than courtesy on the part of the teacher. Talk to him in private; give him a few minutes extra for a private recitation at first; have him do you some personal favor; do anything that will arouse in him any latent element of goodness he may possess. Bashfulness and mental warp are two of the most common causes of "mulishness" in a pupil.

416. "Make the child think well of himself." We do not mean by this to develop any affectation or conceit, but self-confidence in the best sense, confidence in his mental possibilities, moral hero-

ism, and qualities of disposition. Some teachers seem to enjoy "taking the child down," as though a great point had been gained when the self-esteem was taken out of him. Life has enough in it, from boyhood to the grave, to weaken a man's confidence in everything, most of all in himself.

417. They may be classified as follows: (*a*) Those who are brutal at home; (*b*) those who can never see any good in anybody; (*c*) the would-be autocrats (of the village and country districts); (*d*) the busy-bodies and gossips; (*e*) those who dislike the teacher; (*f*) those who are envious of the teacher; (*g*) those who never visit the school.

418. In a private school the principal has the authority of a contract, implied by the placing of the pupil under his charge, to manage his own school in his own way. The parties to the contract are parent, or guardian and principal, the latter acting *in loco parentis* during the pleasure of the parent. Public School Laws are the authority for Public Schools.

419. Endeavor to make your school the centre of civility, politeness, and good manners. The true teacher employs the forms of the beautiful, day by day, in training the child. By ornamenting the school-room with pictures and mottoes, and by tasteful dress, she exercises a silent but untold influence upon the pupil. There is no limit to the civilizing influence of a gentle woman or gentle man in a school.

420. Idleness and lack of proper interest in studies, with want of respect for the teacher. The remote but chief cause, is usually in home training.

421. The grand object is directly, the sustaining of law, and, through that, the ultimate preservation of the common welfare. Subordinate objects would be the reformation of the pupil punished, and the prevention, through the motives of shame or fear, of a repetition of the offense on his part, or that of any other pupil of the school.

422. There are occasions, undoubtedly, when it is necessary to have recourse to force, but it is a mistake to whip for disciplinary purposes merely. Whipping should be used as a reformatory agent, only. The teacher who resorts to its frequent use as a means of securing discipline is either excessively lazy or weak. He can have very little tact or will-power. The following principle embodies the experience of all who have given the question a fair trial: "Much whipping, bad order; little whipping, good order; least whipping, best order."

423. It is a mistake to punish without explanation, for, as punishment is a judicial act, it should be administered judicially. A

boy has the right to know why he receives punishment before it is inflicted. If the teacher does not take the trouble to give him this explanation in a perfectly candid manner, he gives the pupil just cause for regarding him as a petty tyrant, who punishes merely for the personal gratification it affords him.

424. When he punishes him in an angry manner, so that it may be considered assault and battery.

425. To punish children for trifling offenses, continually, at home, or in school, has a bad effect. It is confusing to a child, and does not tend to make distinctions between right and wrong which do exist, but does between those which do not. Strictness alone is not the means to preserve good order. A too frequent infliction of punishment is prejudicial to good order; it must be inflicted at the right time and in the right manner.

426. The teacher should not strive to crush the manhood of the child, but create in it the firm resolve to do the right and discard the wrong. A rigid espionage deadens laudable emulation; and suspension, in many cases, is a hardening instead of a reformatory measure. Tell him he is expected to conform to the requirements of the room as a matter of *justice to the school;* that he wrongs the school by his disobedience and does himself no good. If he is still maliciously disposed, a sound thrashing has frequently been a curative agent. But the teacher of tact *never* whips. He may make such a display of his own muscular powers on the school play-ground as will deter the pupil from any overt act for fear of corporal punishment. Sometimes giving the boy a "new sensation" will stop him in his attempts at evil. We have known a hard character to be ruled by the eye and gesture of a teacher, who never addressed a word of admonishment to him.

427. In the various ways previously enumerated, of cleanliness, brightness, color, the personality of teacher, etc., but the leading way is to interest the pupils and keep them busy. A mild form of punishment is sometimes more effective than harsher means. For instance, if the pupil has tried to disturb the well-being of the school by deceit in any form, it is logical that he can be so seated that he can not conceal books or papers, and so that the teacher can overlook him at all times. If the front seats be too low for him, and uncomfortable, that is an accident whose inconvenience he must endure. But to place him in a seat which was low and uncomfortable, simply that he might be thereby inconvenienced, would be wrong.

428. *Objects.*—The reformation of wrong-doers; the warning of those who are in danger of becoming wrong-doers; and the manifestation of the teacher's disapprobation of the act.

Principles.—That punishments should invariably follow offenses; that all offenses should be punished in proportion to their magnitude; that each class of offenses should have its own kind of punishment; that all punishments are connected to offenses as effects to causes.—*Wickersham's School Economy*, pp. 252–254.

If a pupil is tardy, it is illogical to pull his ears, and it would have no logical connection with the offense, to whip his hands, for wasting his time during the study hour.

Improper Methods.—Those that from their nature excite in the pupil a feeling that an indignity has been committed against his person, and these imply in the inflictor a love of prolonged torture.

Proper Methods.—"Kind reproofs; loss of privileges; restraint or confinement; humiliation; imposition of a task; and actual chastisement with the rod."—*Page's Theory and Practice*, pp. 179–193.

A teacher should never resort to such personal indignities as pulling the hair or snapping the ears of a pupil, because it is brutal and endangers the life and health of the child. He should never apply such epithets as "stupid," "clown," "liar," etc., because it is not only ungentlemanly and coarse, but gives evidence of a brutal nature on his part. *Govern without whipping.*

429. It should be practical and plain. A pupil has done wrong and needs reproof. It is necessary to convince him of his error, to show him the grounds on which he has rendered himself culpable. The teacher knows these grounds and proceeds to state them, but he repeats his statements. In his desire to impress upon the child's mind the truth, he destroys all the effect by making his exposition too perfect. He needed only a few bold statements clearly and incisively *put.* He receives instead a confused and blurred impression with the life all "finished out."

430. One important function of the principal in a large school is to preserve the continuity of moral training. A serious difficulty is encountered in character-training by the rapid transfer of classes. No child is permitted to remain more than one year under a single teacher, and, in some graded schools, the children are taught by a succession of instructors, each dealing with a single topic. Now, permanency of impression and continuity of instruction are absolutely essential to success in moral discipline everywhere. This permanent influence in a large school can only be found in the principal. The head teacher, man or woman, should be selected with special view to fitness of manhood or womanhood; should have time granted to become known to every pupil, and to make a characteristic moral influence felt in every department. In this way every child, through several years, may be brought under the wise and equable influence of a worthy

friend, and the impression thus made may last through life. Of all teachers, the principal of the house should be selected with special reference to character-building in the school. Here is one great advantage of the country district or ungraded school, in the unity of moral impression; an advantage which often more than compensates for the embarrassment of imperfect grading and the mental disadvantage therefrom.

431. The teacher's example; for he teaches as much by that. if not more, than by precept. The teacher's life should be pure; his character above reproach.

ATTENTION.

432. Attention is holding the mind to one thing, to the exclusion of everything else. Adults can and must compel attention to what they are doing, and so can children in a lesser degree. All school-work can not be made attractive, any more than dish-washing can be made fascinating. The power to control one's attention is the result of education. We are taught to control our attention by that grim, stern teacher—experience. We meet with accident or failure in work and naturally say, "There! that will teach me to mind what I am doing."

433. The first requisite in securing attention is to have every pupil assume a proper attitude; erect, easy, and with eyes fixed on the teacher. Everything that is within reach of the hand, and that is calculated to divert attention, should be put aside. Lounging, and a listless attitude and manner, should not be permitted. Should the members of the class generally, be interested in something foreign to the lesson, like a game in which they have been engaged, a story that has just been told, or an interesting piece of news, the teacher should seek to turn their thoughts into a new channel by some anecdote or pleasantry, which will gradually lead to the work on hand.

434. When once secured, the teacher may keep it by thoroughly understanding the subject; must know how to adapt this instruction to the condition of the pupil; and he must be able to present the subject in such an interesting manner that the mind will be constantly stimulated to reach out for new ideas. The new ideas to be presented must be related to those which the pupil already possesses, and not so far in advance but that these relations may be readily discovered. A good share of that uncommon commodity, common-sense, the possession of tact, and a strong personality, are aids to the instructor in solving this problem of the school-room, for he who fails to secure the attention of his pupils, fails utterly and completely.

435. The following excellent rules concerning questioning a class, have special reference to securing attention:

"Do not ask questions in rotation."

"Do not point to the pupil you wish to answer, while giving the question."

"Do not even look fixedly at the pupil whom you wish to answer, while giving the question."

"State question to the class as a *whole*. Ask one member for the answer."

"Do not wait an instant for the answer, when reviewing most subjects."

"Do not look steadily at the pupil who is answering."

"Do not *repeat* a question to oblige those who are inattentive."

"Be sure to ask questions of those who are in the *slightest degree inattentive*."

436. If he is worried by listless pupils, let him ask himself the honest question: "If I taught better, would not my class attend to my teaching?" It is difficult work to give continuous, undivided attention, and the successful and wise teacher will never continue the strain longer than it can be secured, by awakening a healthful interest in the subjects under consideration.

437. Teachers who possess it, generally govern well. They exert a power which magnetizes the pupils. To teach well, means power to secure attention and study. The pupils catch the enthusiasm of the teacher. Cheerful, earnest work makes it easy to maintain order. Unfortunately, enthusiastic teachers sometimes become absorbed in teaching, and neglect the other conditions of success.

438. The teacher that expects to have attention in the recitation, simply because he commands, because he has authority, will not have it long. He must obtain it and hold it by his power to please, to instruct, to inspire, to move, and not by a command.

439. By telling the child something which pays him for giving attention. By giving information in such a manner that the pupil will count it worth his hearing. Awaken his *sympathy* with the subject, and he will give earnest attention. Excite curiosity in the mind, and cheerful, earnest attention follows.

440. By demanding it as a right. By begging it as a great favor. By scolding the pupil for not giving it. It can not be secured by threats. Hearing the lesson rather than attempting to teach it, will not be likely to gain attention. Reading the lesson from a book will not fasten the mind upon it. Presenting a confused combination of ideas will prevent the attention of the pupil. Endeavoring to teach truths which the pupils can not comprehend,

will not secure his attention. Attention is not to be gained by special indulgence, or by rewards.

441. The ability to solicit and exact the absolute attention of the pupil. It is pre-eminently essential as a means of success. To secure it by solicitation, which means asking for it indirectly, by awakening the child's mind to desire that which will come from close attention, is the highest art.

442. There will always be some whose inactivity of mind, indolence of nature, and indifference to the proprieties of life make it too great a tax upon the teacher to attempt to win their attention. Of such, she must quietly but firmly exact as close attention as may be reasonably expected of them. There is a false sentiment that would lay upon the teacher the duty of winning every child, a thing as impracticable as to run a government without laws, courts, or penitentiaries.

443. See that your pupils take no privileges of any kind without your permission. Grant no requests during the progress of a recitation. Confine the business of answering general questions, leaving seats, getting drinks, leaving the room, to the time immediately before dismissing the class; and then allow one or two minutes. Give pupils to understand that the recitation time belongs exclusively to the class, and teach them the virtue of self-denial and endurance. Do not dismiss a class until you have assigned the next lesson, and be sure that all understand the assignment. Govern your school with kindness, but with firmness. Allow no running, scuffling, or romping in the school-room.

MISCELLANEOUS.

444. Kindly, and in a way to secure their confidence and esteem. Rarey, the horse-tamer, could show many teachers how to do this. Let the pupil understand just what is expected of him, and from him, and why it is expected.

445. The teacher should be in the district several days before the opening. If he is an old teacher in the district, he will have abundant work to do in advising with his old pupils as to their studies, and in arousing a thorough interest in the coming session. Let him not rest his success on former work and merits. Each term, as well as each day, must depend on its own merits.

446. Naturally, these remarks refer entirely to the work of the district school. In cities, the new teachers make the acquaintance of their pupils on the first day of school. It is not considered necessary or desirable that they should do more than receive previous suggestions from the principal or superintendent, or both. But, in the country, the teacher should get acquainted with some of

his patrons and with some of his pupils, should learn the history of his school, but should not be influenced by any gossip he may hear. The majority of the common schools, according to the evidence of the community, have a "hard name." Preparatory to the opening day, he should know just what classes his predecessor had, how far advanced, should see specimens of their written work, if possible, and know the methods of teaching and governing, and the statistics left him by his predecessor. If he can secure a meeting of the patrons and the directors during the first month (or previous to the commencement of the school, even), and explain his "intentions," it will have a good effect.

447. To be "on hand" in time. One motive to check tardiness is that of the practice of the teacher. He has no right to ever be late or absent. He should begin work promptly, call the school to order with but little noise, establish order at once, by the manner in which he acts himself and by his manner of moving the school. Place a few problems in arithmetic on the blackboard for solution, and copies for slate work, before the opening hour. Keep the pupils engaged all the time and keep them interested in their work. Your school should be in full "running order" the first day of school. Under favorable conditions, teaching a country school is to be preferred to any graded or high school work in this country.

448. They may be varied by using any or all of the following, frequently changing the order of exercises: 1. Singing of hymn. 2. Responses. 3. Lord's prayer in concert. 4. Song. The responses may be, especially in primary grades, alternately the "Beatitudes," or appropriate selections taken from the Bible, or gems of children's poetry, written upon the blackboard, copied and committed by the pupils. The teaching of moral precepts, in any manner, must be wholly unsectarian.

449. The time should be so divided as to do justice to all; the times of day which different branches may best be studied; different grades should alternate in recitations. The programe should be written on the blackboard the first day of school, and that space wholly for its use. It should be varied occasionally to prevent any feeling of monotony, and its use and purpose should be explained by the teacher in the five or ten minutes' "talk" with which he opens the school. In this talk, do not refer to "rules and regulations." Simply state that you desire to have a "good" school and expect their assistance.

450. It gives system and order to the work of the school, and enables pupils to prepare their lessons at the proper time. Pupils will then have no excuse for a lack of preparation for the recitation.

451. That all studies should have their proportionate share of attention, and that provision must be made for the frequency of recitations. Studies to be prepared in school must not be recited among the first. In general, it will be found most convenient to prepare all mathematical work in school. Classes in arithmetic should not, therefore, be among the first to recite in the morning. The first recitations of the day should be either the lessons prepared at home in the evening or the classes in reading or spelling, alternating. The school day should not close with severe mental labor. Classes in penmanship, drawing, spelling, or vocal music should end the day's work. Class exercises needing steady nerves, such as writing or drawing, ought not to follow a recess or any time of physical exertion. The programme must also provide a time for "General Business."

452. They are Examination, Instruction, and Cultivation. By the first, the teacher finds out what the pupils know, and is then better able to assign future lessons, or impart instruction. The pupil also gains strength and fixes in his mind what he has learned. By the second, the pupil receives information imparted by the teacher or other pupils. The third includes the other two, and also such other criticisms as the teacher and other pupils may give, and the benefit derived from class drills and from written work.

453. 1. A brief reproduction of the preceding lessons. 2. A brief review of the preceding lesson. 3. Rehearsal and critical examination of the daily lesson. 4. Recapitulation of the daily lesson. 5. Adequate preparation for the advanced lesson.

454. To develop individuality; to encourage originality; to cultivate self-reliance and self-possession; to cultivate sentiments of justice, kindness, forbearance, and courtesy; that the development and the growth of the pupils, physically, intellectually, and morally, may be carefully nurtured, and bravely prepare them for life's service.

455. That teachers have too many recitations. We have seen "model programmes" that allotted a recitation for every five minutes in the day. The principle is wholly wrong. It is not uncommon for the teacher of a country school to have twenty-five or thirty recitations per day, and frequently a school has as many classes as it has pupils. No teacher can do justice to a class of the larger pupils in less than half an hour's time. If the older pupils desire to study history, physiology, algebra, book-keeping, etc., it will be better to teach only half the advanced branches at a time. Teach history and algebra for two months, or half the term, and then the other studies for the remainder of the time,

456. That of conducting two recitations at the same time by giving questions or work to each class alternately. The added confusion and the division of the teacher's attention makes this plan of questionable benefit. It is but little better to leave one class in the charge of a pupil, for the confusion will exist to a still greater degree, and the work of the assistant's class will generally be poorly done. To alternate classes on different succeeding days, time may be gained for the recitations, but interest in the studies is lost between "times."

457. That of throwing any intermediate grade into one set of "general exercises" as often as possible. Occasionally, the recitation of a certain study may be omitted from the day's work with good effect. With primary pupils, necessarily, the recitations should be short and frequent. But when there are twenty or thirty classes for one teacher to hear, the work will necessarily be done in a very superficial manner. *Aim to have as few classes as possible and to place each pupil just where he belongs.* Do not be arbitrary about it. Show them the necessity of such classification and arrangement.

458. No; heretical as such an avowal may appear, there is a truth in it that needs emphasis. There will be little progress, mental development, or real breadth where the chief aim is a perfect recitation in the ordinary acceptation of the term. It is high art to know how to read rapidly, selecting that which is profitable and desirable. Successful teaching appreciates the necessities of the class, collectively and individually, training them to select the valuable from the valueless. In the cry for thoroughness, we have certainly neglected some other important considerations. Fortunately, the average teacher is not "troubled" with these perfect recitations.

459. Unless the teacher is perfectly familiar with the lesson and its bearing, so far as they ought to be presented to the class, and beyond that, he should make special preparation for each recitation; because to teach a lesson well, one should know much more of it than the lesson contains. He ought to have a reserve fund of information upon it. A teacher should be so well prepared with each lesson, that were he called upon to recite it, he would be able to do so better than the best pupil in the class.

460. Yes; he should invariably have it thought out before the class appears. Yet, the presence of the class, the development of matters at the very outset or during the progress of the recitation, may suggest a radical change, and very much for the better. This he does not fail to adopt, though prepared for something else. Thorough preparation is the foundation of all genius.

461. The principle is to use the text-book as little as possible. It would be better, were it possible, to use no book at all during recitation. The text-book hampers the teacher in proportion to his dependence upon it. Still, most teachers have neither the time nor the talent to memorize everything they have to communicate, and there is, therefore, to be some use made of helps, in the shape of text-books, or their equivalents. It is difficult to make a general rule on the subject, but the text-book may be used by the teacher during recitation in those branches in which it is necessary for the exact words of the text to be repeated by the teacher, or pupil—the reading lesson, for instance. Above all, teachers should be accurate, and therefore, while the use of the text-book should be reduced to the minimum, it should be at hand for an emergency.

462. No; with the exception of the arithmetic (and its use should be reduced to the minimum), no text-book should be allowed within reach of the pupil while reciting. It is better even, to read the problems of the day's lesson to the individual pupil, but time does not always allow this.

463. Those that require a mere echo of some statement just made by the teacher. The same evil attends all tasks committed to memory, if not intelligently prepared; a slovenly preparation for a repetition lesson of poetry familiarizes the mind with a careless habit of using words that are partly or altogether misunderstood.

464. Those that require a selection of the mind of a child. 1. Of clear ideas. 2. Of clear and concise language. He should see that the answers are expressed, if the age of the child permits, in a full grammatical sentence. He must be patient with answers that are imperfect both in form and in idea, or incorrect, grammatically; the other members of the class will correct them; if the ideas are nearly correct, disentangle the truth from the error; but do not be led into digressions by discussions of answers that are in great measure incorrect. Do not require an answer in any particular formula of words; homely words, familiar to the children, will represent their ideas most forcibly.

465. 1. It compels all to get the whole lesson, since no one can know how much he will be called upon to recite, or when, or where. 2. It checks any disposition on the part of the pupil to be inattentive, since each one is liable, at any moment, to be called upon to recite.

466. The advantages are, (1) that it is useful in awakening an interest in class and in school; (2) that it aids those who may be too timid otherwise to recite, to overcome their diffidence; (3) that it gives all an opportunity to recite the whole or the greater part

of the lesson in the same time; (4) that it offers the best opportunity to secure uniformity, and to cultivate the voice. The disadvantages are, (1) that it offers an opportunity to any that do not know the lesson very well, to attach themselves to those that do and thereby appear to better advantage than they really deserve; (2) that it affords an opportunity to those who may desire to conceal mistakes, intentional deviations and ignorance, to effect their purpose; (3) that it has a tendency to cultivate an unnatural and monotonous style; (4) that it destroys the pupil's independence by taking away his individuality.

467. Quite the opposite extreme from the concert method is that which, for convenience, may be called by this name, but the only advantage claimed for this method is, that the individual laggard can not screen his deficiencies, as he can when reciting in concert. His own individual knowledge, or ignorance, stands out. This is clear, and so far it is an advantage. But ascertaining what a pupil knows of a lesson, is only one end, and that by no means the most important end of a recitation.

468. Taps of the bell may be used to have the class rise, march and take position, or be seated. The following has been suggested:

Teacher counts "one," (class rises) "two," (class passes). Class should be seated by motion of hand. For dismissal, the teacher should use same signals, and have the next class rise and come forward as the first retires. For the counts, the teacher may substitute the tap of the call bell. *Never name the class, then command it to take its place.* Be exactly on time with your signals.

Some of the best schools visited, call classes thus: Teacher taps (once) on desk, class rises; teacher waves hand, (once), class moves to the recitation; teacher moves hand downward, (once) class sits.

469. The interested occupation of the pupils in their own studies.

470. He who thinks himself a good teacher because he possesses such power of control over his pupils that he can hold them at all times in a "solemn stillness," but who fails in methods of instruction and in arousing in their young hearts a love of knowledge and a high purpose in life, makes a woeful mistake.

471. The usual way is to have a rule against it, and a penalty, but this is a wrong principle. Noise and study are incompatible. Explain this to the pupils, and enlist their aid in the matter. Cause them to know that you want to make the room pleasant; that you do not want them to be troubled and harassed by others interrupting them. You may ask them to go without whispering for a half hour, or hour, and at the end of that time ascertain who

have done so. Or you may have a period set apart for speaking, by having a large card marked "Study Hour" on one side, and "Needful Speech" on the other. At the end of each hour, turn this card.

472. Keep an eye on the noisy ones and give them separate seats, not so much as a punishment as to prevent their troubling others. Keep a record of those who whisper much, and class them as "disorderly," and lower their standing for good behavior. Detain those who are noisy, and try to influence them by a kind personal talk. Appoint some of these as monitors. Give extra employment to those who seem to have time to whisper.

473. He should readily recognize the difference in the conduct of those who whisper about their studies, and those who whisper about mischief. Quietness can pervade the school-room without that repressed feeling that comes from arbitrary rule and the fear of severe punishment.

474. If whispering is constant and general during school-hours, the teacher is to blame. If only a few whisper, they are the so-called chatter-boxes who can not refrain during the lessons from sharing their thoughts and observations with their neighbors. A lack of employment is the general, prevailing cause.

475. If whispering prevails in the whole class, or in certain recitations, the teacher's method is not suitable. He goes on too slowly or too quickly, speaks monotonously or too rapidly, is too "wordy" or expresses himself in phrases which the children do not understand. Then he should direct his attention to himself and correct the faults in his method of teaching. He should not pay attention to a few pupils—usually the best—and neglect the others.

476. The idea should not be entertained for a moment in the district school. There, the recess will always be a justifiable necessity. In several of our larger cities, notably in those of New York State, the no-recess plan is working with admirable results, according to the testimony of superintendents and principals. Its use has been universally advocated upon the following grounds: (1) That recesses are filled with moral danger to pupils; (2) that they weaken the discipline of the school. To this its opponents reply, that in every well-disciplined school the opportunities for vicious contamination are almost absolutely *nil;* and that if any mischief should result from the association of pupils, it is far more likely to arise from their being out together between recesses, when their actions can not be observed by their teachers; and again that if children were sent to school for the sole purpose of their being kept still—a thought not entertained by any rational educator —the second argument might have some weight; but quietness is

in no way desirable except in so far as it contributes to the success of this work. It is a means to an end, and not an end in itself. A certain degree of quietness must be had, or the main purpose of the school must fail. And the well-being of the child's physical nature is not to be overlooked. As means of ventilation in nine cases out of ten are utterly inadequate, the pupil can only obtain pure air in out-door exercise.

477. Dr. J. Baldwin, with a few remarks upon each, advances the following list, which teachers may enlarge upon to an unlimited extent:

I. Know thoroughly what you would teach.
II. Secure attention by sustaining interest.
III. Use language which your pupils understand.
IV. Proceed from the known to the unknown by easy steps.
V. Lead your pupils to find out by themselves.
VI. Manage to have the pupils re-state, in their own language, the truths taught, giving their own illustrations and proofs.
VII. *Review*, REVIEW, REVIEW

478. Should "Friday afternoon" exercises be given?

Undoubtedly! Make them the happiest half-days of the week. With this object and that of instruction in view, success will surely follow. Pupils may be led to do much work under the impression that they are playing. Among the many things that you may do, the following are presented as examples:

(1) Have a pronunciation test. Prepare and place upon the blackboard at least ten words commonly mispronounced. Do this soon enough to enable the earnest pupils to consult the dictionary. (2) Devote twenty minutes to "spelling down," using a list of words commonly misspelled. (3) Have a chart or map exercise. (4) Read a short sketch, and have pupils reproduce the thought orally or in writing. (5) Let each pupil give a sentiment from a standard author. If possible, induce the pupil to develop the thought in his sentiment. (6) Place "queer queries" on the board for investigation. Do this a week in advance. It will stimulate investigation. Parents will grow interested. (7) Give a practical lesson in civil government. (8) Conduct an exercise in false syntax. (9) Ask for recitations of poetry and prose of genuine literary merit from older pupils. (10) Have declamations. Some if not all of these can be used in any school.

479. Schools in the larger towns and cities have a regular music teacher who gives lessons in vocal culture (and frequently additionally, in instrumental music), but, in the ungraded school, the children can be taught by following the "air" as sung by the teacher, the words first being written on the blackboard and copied by the pupils.

480. Yes; the teacher with the "poorest voice" *can* interest the children and arouse their enthusiasm until they will, of their own accord, "make music." Simple airs can be taught small children with but little difficulty.

481. A pupil should be drilled on exercises to give him complete mastery over the pitch of his voice. First, he should practice singing the *diatonic scale*. Second, he should be required to give the elementary sounds on different degrees of the scale, beginning at a low pitch and ascending gradually as high as he can speak with ease, and then gradually descending to the lowest pitch. Third, he should be required to repeat sentences on different degrees of the scale and to read selections which require variety of pitch. Such a drill will enrich the voice and give him complete command over its pitch in reading or speaking. This should be followed by drills in musical exercises from any good text-book.

482. Where there is such an opportunity, instead of a general dismissal, the teacher may proceed as follows, saying: "I will dismiss in the class (1) those who have seemed to be successful in managing themselves; they may stand—George, Frank, etc., etc." After these (2) "those who seem to me to be moderately successful; they may stand—Henry, Jennie, etc." Finally (3) "those who have had the least success; these may stand, James, Maggie, etc." Then dismiss these.

483. Before a teacher can set about his professional work intelligently, and with assurance of success, he must not only comprehend its technical details, but he should also have a broad and comprehensive knowledge of the general objects of education, and the means by which these are to be accomplished. That is, proper professional preparation includes a thorough study of the branches to be taught, the faculties of the mind to be developed, and methods of teaching.

484. The results are the same as all that come from unconscious tuition. His habits should be those of a gentleman, and the better breeding he maintains, in just such a degree will the manners of his pupils be improved. The story of the city teacher who always carried his hands deeply buried in his pantaloon pockets and was faithfully copied by every boy in the school, conveys a moral worth heeding.

485. (*a*) Honesty, industry, generosity, kindness, politeness, and economy. (*b*) Because the possession of these qualities makes a true man or woman. As the influence of home and of general society is much greater than that of the school, the teacher can be held responsible for the results only so far as his own influence extends. If that influence, both directly and indi-

rectly, has always been in favor of the highest moral excellence, no blame can attach to him if other and adverse influences, over which he has no control, have proved stronger than his own.

486. By practice, precept, and the use of kind words. A kind word costs nothing, yet its influence may last through a life-time. Years after the speaker has forgotten it, or the occasion upon which it was spoken, the hearer will feel the result of the encouragement it gave him, the difficulty it smoothed, or the sorrow it comforted. Politeness in children and young people is one of the most winning and graceful attributes. *It is a mistaken idea to fancy rudeness a token of manliness or bravery.* Bayard, one of the bravest of Cavaliers, *sans peur et sans reproche*, was one of the most finished gentlemen mentioned in history.

487. Yes; there has been some difficulty in finding a practical means of teaching it in the common or graded schools, but one or two manuals, lately published, have removed this source of inconvenience. A knowledge of the subject promotes habits of honesty, economy, and thrift. Pupils should have this much technical education at least. Many of them will never have the opportunity of attending a commercial college, and the rudiments of the science can easily and readily be taught in the public school.

488. If the ordinary recitations will not permit of its being included in the daily programme, the school can be dismissed a few minutes earlier, two or three times a week, and the teacher remain with this special class fifteen or twenty minutes later than the usual hour of dismissal. Such a plan has been used to great advantage.

489. In place of the regular recitation in reading, some morning, the teacher may recite to the pupils some exercise, either in prose or verse. This should be a well-chosen article, something new to the pupils, and which they are sure to appreciate. Or, he may prepare, privately, one of his ablest pupils to give it, and on a dull morning when the lessons seem so familiar to the class that it is almost "hum-drum," he may surprise them by asking this pupil to recite for them the exercise previously prepared in private. Little surprises of this sort are a source of delight to young and old.

490. It is the display of *irreguiar* work of a few pupils at the expense of all the *regular* work of all the pupils, or usually it is an oral rhetorical display by a school in which no rhetorical instruction is given. Virtually, it is an attempt upon the part of the teacher to gain credit for the school by displaying what the school does not do as a school, and by ignoring all that it does do.

491. The exposition, which is an exhibition, by systematic arrangement, of the regular work of every pupil of every class in

such manner and place as will enable every patron to examine it, at leisure, and easily gain therefrom, reasonably correct information as to the ability and progress of every child in every class, the capabilities of children at different ages, the degree of advancement which they may reach, the different kinds of work and manner of working of different grades, the comparative ability of different teachers and pupils, and the distinctive methods of each.

492. Just so far that he may know how to go about the prepation of it in a proper way. If the lesson is unusually difficult, it is proper for the teacher to point out the difficulties and suggest their solution, but no more. Pupils should be taught that the lesson is a trial of their strength, and that to fail is to acknowledge defeat, but that to succeed is to score a victory. It is thought, too, that by helping pupils to any great extent, they come to distrust their own ability, and this, in many cases, is disheartentng and enervating.

493. Nothing seems at first sight more pleasing or more natural than for pupils to give presents to their teachers, but some objections may be offered to the practice.

A careless pupil, from an opulent home, is permitted to make a handsome subscription, when the "paper" is started, involving not the slightest self-sacrifice. A good pupil, the child of poor parents, who, perhaps, honors the teacher far more than the rich man's son, is obliged to refuse the smallest contribution. This is embarrassing to the pupil and, perhaps, mortifying to the teacher, who may not know the true reason. The teacher wields something more than the kindly authority of a parent. He is a judge. It is his duty, at times, to try causes and pronounce sentence. He keeps the record; he confers honor; he inflicts penalty. There is danger, therefore, of a gift having the appearance andsome of the effect of a bribe. If the teacher is about *leaving* the school, there can be no objection to his accepting a parting gift. When a pupil leaves, there could be no great harm in leaving behind him tokens of his gratitude and affection to those who have instructed him. Again, it is the most "popular" teacher who is likely to receive the presents, and while he is not necesarily the "best", it is liable to hurt the feelings of his associates. Altogether, the giving of presents is a doubtful good and of doubtful propriety.

494. There seems to be a popular demand for a practical education, and the result has been the establishment of schools of technology and creative education. Several workingmen's schools are in successful operation in various parts of the United States. It is stated that the applications from rich men to get their sons places in these schools are very numerous, but they are generally excluded,

as it is desired that the experiment in this method of instruction shall be tried first with the children of the poor.

495. To inquire into the fitness of a pupil to be advanced into a higher grade ; to determine if he has that maturity of mental powers which will enable him to pursue successfully the studies of the advanced grade.

496. Too many pupils, poor classification, a lack of information on the part of directors and parents relative to the aim and intent of our free school system, low wages, too many young and inefficient teachers, and a want of coöperation between parents and teachers.

497. In the hands of most teachers, and as generally practiced, the systems of offering prizes in schools do much more harm than good. If, however, pupils can be made to understand that prizes are merely the tangible representation of the real reward, and to value them accordingly ; if the prizes can be made so numerous that the merits of all can thus be rewarded, and the requisite care be taken that the value of each prize be in proportion to the positive merit of the one who receives it, nearly all the objections in their use would be removed, and they might become an auxiliary in the work of inciting pupils to study. The principle of giving prizes as rewards is not wrong, but it has been wrongly applied. With judicious application, its use is safe.

498. Those of doubtful propriety are prizes ; merit-marks ; emulation ; fear of punishment ; shame and ridicule. Proper incentives are the approbation of teachers, parents and friends ; the attainment of an honorable position in the school ; the pleasure of overcoming difficulties ; the gratification of curiosity ; the desire of knowledge ; the hope of success ; and the satisfaction of doing right.

499. Both directors (or trustees) and teachers often take a narrow and improper view of each other, and of the relation they sustain to one another. The director is not the mere hirer—the task master—of the teacher, one appointed to get as much work for as little pay as possible. He is the agent of the parents of the pupils, selected for the express purpose of obtaining the best instructor for those pupils which the common means will compass, and of extending all reasonable and proper facilities to the instructor, in the discharge of his duties, which the circumstances render necessary.

500. The teacher is neither the servant of the directors, nor is he one whose chief object is to give as little service and get as much money as possible. He is the member of a high and most responsible profession; selected to discharge duties of the utmost importance to the community; and entitled, if those duties be

properly discharged, to a consideration and to a recompense, of which his salary is the smallest, though an indispensable portion. Teachers frequently demand improved and increased facilities for teaching, such as maps, blackboards, apparatus; and are not always successful. In such cases, it is neither politic nor just to exhibit temper, nor to denounce the trustees or board of education. It *may be* that it is not parsimony, but an honest want of knowledge of the use and necessity of the improvement, which forms the objection. True, the teacher is the best judge, and his opinion should be decisive; but matters are not always as they should be. A little management will effect the object. The use of a temporary expedient, the employment of a little ingenuity, will do more than impatience or hard language.

ADDENDA.

MANUAL TRAINING.

501. Educating through the use of the hand.

502. To educate the whole being; to cause the brain, eye, and hand to work in unison, thereby producing the highest type of man. It also affords an opportunity to the student of discovering his profession or ascertaining his natural inclinations before reaching manhood; it also tends to fit for life's duties.

503. A greater interest has been exhibited in school work; it has produced students of a more practical turn. Skill in the use of tools has been acquired by uniting the school, the laboratory, and the shop.

504. In giving prominence to drawing, in giving actual practice in making and using apparatus, and in the care and use of tools. It may omit some of the usual studies, such as ancient and foreign languages, and belles lettres.

505. A manual training school does not teach trades. Its aim is to give a knowledge of things and the uses to which they may be put, and thus lay a foundation for many trades. But at the same time it looks to intellectual discipline, to be derived from this study of things and tools.

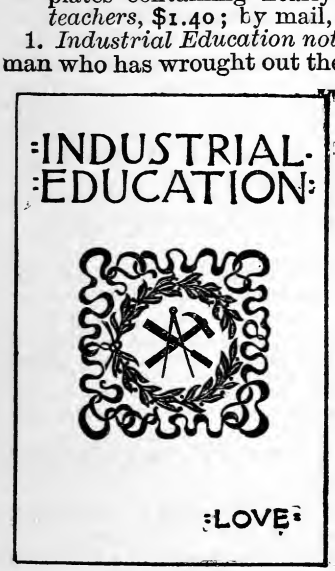
506. Yes, we believe it is, where it has been intelligently tried. Europe is unanimous in its favor. It has produced an increasing interest in manufacturing pursuits, and is rapidly making a constantly-growing class of superior intelligent mechanics. How to make it a part of our public school system is the question of the day.

BOOKS FOR TEACHERS.

Love's Industrial Education.

Industrial Education; a guide to Manual Training. By SAMUEL G. LOVE, principal of the Jamestown, (N. Y.) public schools. Cloth, 12mo, 330 pp. with 40 full-page plates containing nearly 400 figures. Price, $1.75; *to teachers*, $1.40; by mail, 12 cents extra.

1. *Industrial Education not understood.* Probably the only man who has wrought out the problem in a practical way is Samuel G. Love, the superintendent of the Jamestown (N. Y.) schools. Mr. Love has now about 2,400 children in the primary, advanced, and high schools under his charge; he is assisted by fifty teachers, so that an admirable opportunity was offered. In 1874 (about fourteen years ago) Mr. Love began his experiment; gradually he introduced one occupation, and then another, until at last nearly all the pupils are following some form of educating work.



2. *Why it is demanded.* The reasons for introducing it are clearly stated by Mr. Love. It was done because the education of the books left the pupils unfitted to meet the practical problems the world asks them to solve. The world does not have a field ready for the student in book-lore. The statements of Mr. Love should be carefully read.

3. *It is an educational book.* Any one can give some formal work to girls and boys. What has been needed has been some one who could find out what is suited to the little child who is in the "First Reader," to the one who is in the "Second Reader," and so on. It must be remembered the effort is not to make carpenters, and type-setters, and dressmakers of boys and girls, but to *educate them by these occupations better than without them.*

4. *It tells the teacher just what to do.* Every teacher should put some form of Manual Training into his school. At present the only ones are Gymnastics, Writing, and Drawing. But there are, it is estimated, more than thirty forms of Industrial Work that may be made *educative.* The teacher who studies this book will want to try some of these forms. He will find light on the subject.

5. *It must be noted that a demand now exists for men and women to give Industrial Training.* Those teachers who are wise will begin now to study this important subject. The city of New York has decided to introduce it into its schools, where 140,000 pupils are gathered. It is a mighty undertaking, but it will succeed. The people see the need of a different education than that given by the books. Book education is faulty, partial, incomplete. But where are the men and women to come from who can give instruction? Those who read this book and set to work to introduce its methods into their schools will be fitting themselves for higher positions.

The Lutheran Observer says:—"This volume on Manual Teaching ought to be speedily introduced into all the public schools. It is admirably adapted for its purpose and we recommend it to teachers everywhere."

The Nashville American says:—"This is a practical volume. It embodies the results of many years of trial in a search after those occupations that will educate in the true sense of the word. It is not a work dealing in theories or abstractions, but in methods and details, such as will help the teacher or parent selecting occupations for children."

West Virginia School Journal.—"It shows what can be done by a resolute and spirited teacher."

Burlington Free Press.—"An excellent hand book."

Prin. Sherman Williams, Glens Falls, N. Y.—"I am sure it will greatly aid the solution of this difficult problem."

Prof. Edward Brooks, Late Principal Millersburg, (Pa.) Normal School.—"It is a much needed work; is the best book I have seen."

Supt. S. T. Dutton, New Haven.—"The book is proof that some practical results have been reached and is full of promise for the future.

Supt. John E. Bodley, Minneapolis.—"I know of no one more competent to tell other superintendents and teachers how to introduce Manual Training than Prof. Love."

Oil City Blizzard.—"The system he has marked out must be a good one, or he would never have allowed it to go out."

Buffalo Times.—"Teachers are looking into this subject and this will help them."

Boston Advertiser.—"A plain unvarnished explanation."

Jamestown, N. Y. Evening Journal.—"In the hands of an intelligent teacher cannot fail to yield satisfactory results."

Currie's Early Education.

"The Principles and Practice of Early and Infant School Education." By JAMES CURRIE, A. M., Prin. Church of Scotland Training College, Edinburgh. Author of "Common School Education," etc. With an introduction by Clarence E. Meleney, A. M., Supt. Schools, Paterson, N. J. Bound in blue cloth, gold, 16mo, 290 pp. Price, $1.25; *to teachers*, $1.00; by mail, 8 cents extra.

WHY THIS BOOK IS VALUABLE.

1. Pestalozzi gave New England its educational supremacy. The Pestalozzian wave struck this country more than forty years ago, and produced a mighty shock. It set New England to thinking. Horace Mann became eloquent to help on the change, and went up and down Massachusetts, urging in earnest tones the change proposed by the Swiss educator. What gave New England its educational supremacy was its reception of Pestalozzi's doctrines. Page, Philbrick, Barnard were all his disciples.

2. It is the work of one of the best expounders of Pestalozzi.

Forty years ago there was an upheaval in education. Pestalozzi's words were acting like yeast upon educators; thousands had been to visit his schools at Yverdun, and on their return to their own lands had reported the wonderful scenes they had witnessed. Rev. James Currie comprehended the movement, and sought to introduce it. Grasping the ideas of this great teacher, he spread them in Scotland; but that country was not elastic and receptive. Still, Mr. Currie's presentation of them wrought a great change, and he is to be reckoned as the most powerful exponent of the new ideas in Scotland. Hence this book, which contains them, must be considered as a treasure by the educator.

3. This volume is really a Manual of Principles of Teaching. It exhibits enough of the principles to make the teacher intelligent in her practice. Most manuals give details, but no foundation principles. The first part lays a psychological basis—the only one there is for the teacher; and this is done in a simple and concise way. He declares emphatically that teaching cannot be learned empirically. That is, that one cannot watch a teacher and see *how* he does it, and then, imitating, claim to be a teacher. The principles must be learned.

4. It is a Manual of Practice in Teaching.

It discusses the subjects of Number, Object Lessons, Color, Form, Geography, Singing, and Reading in a most intelligent manner. There is a world of valuable suggestions here for the teacher.

5. It points out the characteristics of Lesson-Giving—or Good Teaching.

The language of the teacher, the tone of voice, the questioning needed, the sympathy with the class, the cheerfulness needed, the patience, the self-possession, the animation, the decorum, the discipline, are all discussed, This latter term is defined, and it needs to be, for most teachers use it to cover all reasons for doing—it is for "discipline" they do everything.

6. It discusses the motives to be used in teaching.

Any one who can throw light here will be listened to; Mr. Currie has done this admirably. He puts (1) Activity, (2) Love, (3) Social Relation, as the three main motives. Rewards and Punishments, Bribery, etc., are here well treated. The author was evidently a man "ahead of his times;" everywhere we see the spirit of a humane man; he is a lover of children, a student of childhood, a deep thinker on subjects that seem very easy to the pretentious pedagogue.

7. The book has an admirable introduction,

By Supt. Meleney, of Paterson, N. J., a disciple of the New Education, and one of the most promising of the new style of educators that are coming to the front in these days. Taking it all together, it is a volume that well deserves wonderful popularity.

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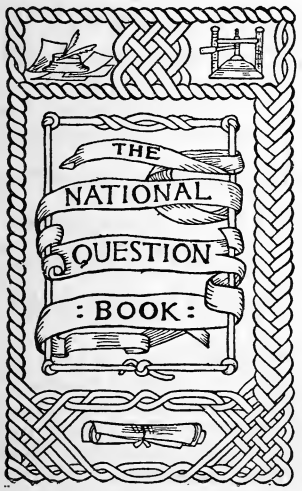
This work contains 6,000 *Questions and Answers on* 22 *Different Branches of Study.*

ITS DISTINGUISHING FEATURES.

1. It aims to make the teacher a BETTER TEACHER.

"How to Make Teaching a Profession" has challenged the attention of the wisest teacher. It is plain that to accomplish this the teacher must pass from the stage of a knowledge of the rudiments, to the stage of somewhat extensive acquirement. There are steps in this movement; if a teacher will take the first and see what the next is, he will probably go on to the next, and so on. One of the reasons why there has been no movement forward by those who have made this first step, is that there was nothing marked out as a second step.

2. This book will show the teacher how to go forward.



In the preface the course of study usually pursued in our best normal schools is given. This proposes four g r a d e s; third, second, first, and professional. Then, questions are given appropriate for each of these grades. Answers follow each section. A teacher will use the book somewhat as follows:— If he is in the third grade he will put the questions found in this book concerning numbers, geography, history, grammar, orthography, and theory and practice of teaching to himself and get out the answer. Having done this he will go on to the other grades in a similar manner. In this way he will know as to his fitness to pass an examination for

these grades. The selection of questions is a good one.

3. It proposes questions concerning teaching itself.

The need of studying the Art of Teaching is becoming more and more apparent. There are questions that will prove very suggestive and valuable on the Theory and Practice of Education.

4. It is a general review of the common school and higher studies.

Each department of questions is followed by department of answers on same subject, each question being numbered, and answer having corresponding number.

Arithmetic, 3d grade.	English Literature, 1st grade.
Geography, 2d and 3d grade.	Natural Philosophy, "
U. S. History, 2d and 3d grade.	Algebra, professional grade.
Grammar, 1st, 2d, and 3d grade.	General History, profess. grade.
Orthography and Orthoepy, 3d grade.	Geometry, " "
Theory and Practice of Teaching,	Latin, " "
1st, 2d, and 3d grade.	Zoology, " "
Rhetoric and Composition, 2d grade,	Astronomy, " "
Physiology, 1st and 2d grade.	Botany, " "
Bookkeeping, 1st and 2d grade.	Physics, " "
Civil Government, 1st and 2d grade.	Chemistry, " "
Physical Geography, 1st grade.	Geology, " "

5. It is carefully graded into grades corresponding to those into which teachers are usually classed.

It is important for a teacher to know what are appropriate questions to ask a third grade teacher, for example. Examiners of teachers, too, need to know what are appropriate questions. In fact, to put the examination of the teacher into a proper system is most important.

6. Again, this book broadens the field, and will advance education. The second grade teacher, for example, is examined in rhetoric and composition, physiology, book-keeping, and civil government, subjects usually omitted. The teacher who follows this book faithfully will become as near as possible a *normal school graduate.* It is really a contribution to pedagogic progress. It points out to the teacher a *road to professional fitness.*

7. It is a useful reference work for every teacher and private library.

Every teacher needs a book to turn to for questions, for example, a history class. Time is precious ; he gives a pupil the book saying, " Write five of those questions on the blackboard ; the class may bring in answers to-morrow." A book,

made on the broad principles this is, has numerous uses.

8. Examiners of teachers will find it especially valuable. It represents the standard required in New York and the East generally for third, second, first, and state diploma grades. It will tend to make a uniform standard throughout the United States.

WHAT IS SAID OF IT.

A Great Help.—"It seems to be well adapted to the purposes for which it is prepared. It will undoubtedly be a great help to many teachers who are preparing to pass an examination."—E. A. GASTMAN, Supt. Schools, Decatur, Ill.

Very Suggestive.—"I consider it very suggestive. As a book for class-room use it can serve a very important object by this suggestiveness, which is the peculiar quality of the book. Many of the questions suggest others to the teacher, and thus open her mind to new aspects of the book she is teaching. Such questions aid pupils in looking up matter which they have previously acquired, and yet supply the charm of novelty."—B. C. GREGORY, Secretary of N. J. Reading Circle.

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Payne's Lectures on the Science and

ART OF EDUCATION. *Reading Circle Edition.* By JOSEPH PAYNE, the first Professor of the Science and Art of Education in the College of Preceptors, London, England. With portrait. 16mo, 350 pp., English cloth, with gold back stamp. Price, $1.00 ; *to teachers*, 80 cents ; by mail, 7 cents extra. *Elegant new edition from new plates.*

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(1.) The *side-titles.* These give the contents of the page. (2.) The analysis of each lecture, with reference to the *educational* points in it. (3.) The general analysis pointing out the three great principles found at the beginning. (4.) The index, where, under such heads as Teaching, Education, The Child, the important utterances of Mr. Payne are set forth. (5.) Its handy shape, large type, fine paper, and press-work and tasteful binding. All of these features make this a most valuable book. To obtain all these features in one edition, it was found necessary to *get out this new edition.*

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Educational Courant.—"To know how to teach, more is needed than a knowledge of the branches taught. This is especially valuable."

Pennsylvania Journal of Education.—"Will be of practical value to Normal Schools and Institutes."

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"School Devices." A book of ways and suggestions for teachers. By EDWARD R. SHAW and WEBB DONNELL, of the High School at Yonkers, N. Y. Illustrated. Dark-blue cloth binding, gold, 16mo, 224 pp. Price, $1.25; *to teachers*, $1.00; by mail, 9 cents extra.

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Teaching is an art; there are "ways to do it." This book is made to point out "ways," and to help by suggestions.

1. It gives "ways" for teaching Language, Grammar, Reading, Spelling, Geography, etc. These are in many cases novel; they are designed to help attract the attention of the pupil.

2. The "ways" given are not the questionable "ways" so often seen practiced in school-rooms, but are in accord with the spirit of modern educational ideas.

3. This book will afford practical assistance to teachers who wish to keep their work from degenerating into mere routine. It gives them, in convenient form for constant use at the desk, a multitude of new ways in which to present old truths. The great enemy of the teacher is want of interest. Their methods do not attract attention. There is no teaching unless there is *attention*. The teacher is too apt to think there is but one "way" of teaching spelling; he thus falls into a rut. Now there are many "ways" of teaching spelling, and some "ways" are better than others. Variety must exist in the school-room; the authors of this volume deserve the thanks of the teachers for pointing out methods of obtaining variety without sacrificing the great end sought—scholarship. New "ways" induce greater effort, and renewal of activity.

4. The book gives the result of large actual experience in the school-room, and will meet the needs of thousands of teachers, by placing at their command that for which visits to other schools are made, institutes and associations attended, viz., new ideas and fresh and forceful ways of teaching. The devices given under Drawing and Physiology are of an eminently practical nature, and cannot fail to invest these subjects with new interest. The attempt has been made to present only devices of a practical character.

5. The book suggests "ways" to make teaching *effective;* it is not simply a book of new "ways," but of "ways" that will produce good results.

WHAT IT CONTAINS.

"Ways" of teaching Language—Geography—Spelling—Reading—Arithmetic—History—Physiology—Drawing—Penmanship—Personal Suggestions—School-Room Suggestions—Outside the School-Room—Seat Work. The first chapter on *Language* contains: A Way to Prepare Pictures for Young Pupils—Supplying the Proper Word—A Language Lesson—Weekly Plan of Language Work for Lower Grammar Grades—Writing Ordinals—Correcting Bad English—For Beginners in Composition—Word Developing—An Easy Exercise in Composition—Composition from Pictures—Plan for Oral Composition—Debating Exercises—Language Drill in every Lesson—Letter Writing—Matter for Letters—Forms for Business Letters—Papers Written from Recitation Notes—Equivalent Forms of Expression—Devices for Use of Capitals—Excerpts to Write Out from Memory—Regular Plan in Composition Writing—To Exercise the Imagination—Suggestions about Local Subjects for Compositions—A Letter Written upon the Blackboard by all the Class—Choice of Words—Order of Criticism—A Plan for Rapid Correction of Compositions—To File and Hold Essays—Assigning a Subject for a Composition—Character Sketches—Illustrative Syntax—A Talk on Language—A Grammar Lesson, Device for Building up the Conjugation of the Verb—The Infinitive Mood—Shall and Will—Matter for a Talk on Words—Surnames.

At the end of the volume is inserted a careful selection of Bible Readings for every school day of the year, with the pronunciation of difficult words—a provision that will be appreciated by those who are obliged to hunt each morning for a proper selection for school devotions.

Mr. E. R. Shaw, of the Yonkers High School, is well known, and Mr. Webb Donnell, of the East Machias (Me.) Academy, is a teacher of fine promise; they have put together a great variety of suggestions that cannot fail to be of real service.

Home and School.—"Is just the book for every teacher who wishes to be a better teacher."

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School Moderator.—"Contains a large amount of valuable reading. School government is admirably presented."

Progressive Teacher.—"Should occupy an honored place in every teacher's library."

Ed. Courant.—"It will help the teacher greatly."

Va. Ed. Journal.—"The author draws from a large experience."

Country and Village Schools.—"Cannot fail to be serviceable."

Parker's Talks on Teaching.

Notes of "Talks on Teaching" given by COL. FRANCIS W. PARKER (formerly Superintendent of schools of Quincy, Mass.), before the Martha's Vineyard Institute, Summer of 1882. Reported by LELIA E. PATRIDGE. Square 16mo, 5x6 1-2 inches, 192 pp., *laid* paper, English cloth. Price, $1.25 ; *to teachers*, $1.00 ; by mail, 9 cents extra.

The methods of teaching employed in the schools of Quincy, Mass., were seen to be the methods of nature. As they were copied and explained, they awoke a great desire on the part of those who could not visit the schools to know the underlying principles. In other words, Colonel Parker was asked to explain *why* he had his teachers teach thus. In the summer of 1882, in response to requests, Colonel Parker gave a course of lectures before the Martha's Vineyard Institute, and these were reported by Miss Patridge, and published in this book.

The book became famous ; more copies were sold of it in the same time than of any other educational book whatever. The daily papers, which usually pass by such books with a mere mention, devoted columns to reviews of it.

The following points will show why the teacher will want this book.

1. It explains the "New Methods." There is a wide gulf between the new and the old education. Even school boards understand this.

2. It gives the underlying principles of education. For it must be remembered that Col. Parker is not expounding *his* methods, but the methods of nature.

3. It gives the ideas of a man who is evidently an "educational genius," a man born to understand and expound education. We have few such ; they are worth everything to the human race.

4. It gives a biography of Col. Parker. This will help the teacher of education to comprehend the man and his motives.

5. It has been adopted by nearly every State Reading Circle.

The Indiana State Reading Circle alone have ordered 1500 copies. Besides this, many County Reading Circles have adopted it.

6. The new methods placed "the Quincy schools from twelve to twenty-five per cent. above the average of the towns in the same county." (This county is Norfolk—the one that Boston is in.) This is the statement of George A. Walton, of the Massachusetts Board of Education.

7. The Quincy methods (according to Mr. George A. Walton) are adopted wherever they are known, and where the teachers have the skill and permission to employ them.

8. This book has created more interest in Europe than any other American book on education.

Normal Teacher. (Ind.)—"Probably no volume will attract the attention of the teachers of this country so much as this."

Journal of Education (Va.)—"No teacher can read it without receiving fresh ideas."

The New England Journal of Education (July 12, '83), published a page criticism by Prof. Payne. When this met the eye of Rev. A. D. Moyes, one of the editors, he wrote two pages of fervid approval and that influential paper became the friend of the New Education. "We recommend the book to every teacher."

New York Teachers' Companion.—"The Colonel is a warrior; his battle cry is freedom of the teachers from ruts, rust, routine, and servile imitation."

Philadelphia Teacher.—"His greatness consists in his courageous application of the truth."

Chicago Advance.—"They (the 'talks') will be very helpful to teachers."

Chicago Evening Journal.—"They constitute the best, most comprehensive, and authoritative presentation of the Quincy schools."

Chicago Daily News.—"Valuable materials for thought and study."

Burlington Hawkeye.—"We are pleased with the common sense and reasonableness of any principle laid down and methods recommended."

Boston Commonwealth.—"Are of interest to all teachers."

Troy Times.—"They are hints on which the intelligence of the teacher is left free to act."

New York Tribune.—"Suggestive to instructors. The clear directions for following the methods so brilliantly inaugurated at Quincy will be of interest to all students of pedagogy."

Philadelphia Ledger.—"Francis W. Parker holds what in some regards, is even a higher place than that of the Chief Executive, the greatest teacher and organizer of the common schools that this country now possesses." (From a long review.)

Philadelphia Record.—"His talk is informal by knowledge; and his knowledge is booked by experience."

The Moderator. (Michigan.)—In spite of all that has been published they constitute the best presentation of the Quincy method."

Patridge's "Quincy Methods."

The "Quincy Methods," illustrated; Pen photographs from the Quincy schools. By LELIA E. PATRIDGE. Illustrated with a number of engravings, and two colored plates. Blue cloth, gilt, 12mo, 686 pp. Price, $1.75; *to teachers*, $1.40; by mail, 13 cents extra.

When the schools of Quincy, Mass., became so famous under the superintendence of Col. Francis W. Parker, thousands of teachers visited them. Quincy became a sort of "educational Mecca," to the disgust of the routinists, whose schools were passed by. Those who went to study the methods pursued there were called on to tell what they had seen. Miss Patridge was one of those who visited the schools of Quincy; in the Pennsylvania Institutes (many of which she conducted), she found the teachers were never tired of being told how things were done in Quincy. She revisited the schools several times, and wrote down what she saw; then the book was made.

1. This book presents the actual practice in the schools of Quincy. It is composed of "pen photographs."

2. It gives abundant reasons for the great stir produced by the two words "Quincy Methods." There are reasons for the discussion that has been going on among the teachers of late years.

3. It gives an insight to principles underlying real education as distinguished from book learning.

4. It shows the teacher not only what to do, but gives the way in which to do it.

5. It impresses one with the *spirit* of the Quincy schools.

6. It shows the teacher how to create an *atmosphere* of happiness, of busy work, and of progress.

7. It shows the teacher how not to waste her time in worrying over disorder.

8. It tells how to treat pupils with courtesy, and get courtesy back again.

9. It presents four years of work, considering Number, Color, Direction, Dimension, Botany, Minerals, Form, Language, Writing, Pictures, Modelling, Drawing, Singing, Geography, Zoology, etc., etc.

10. There are 686 pages; a large book devoted to the realities of school life, in realistic descriptive language. It is plain, real, not abstruse and uninteresting.

11. It gives an insight into real education, the education urged by Pestalozzi, Frœbel, Mann, Page, Parker, etc.

Tate's Philosophy of Education.

The Philosophy of Education. By T. TATE. Revised and Annotated by E. E. SHEIB, Ph.D., Principal of the Louisiana State Normal School. Unique cloth binding, laid paper, 331 pp. Price, $1.50; *to teachers*, $1.20; by mail, 7 cents extra.

There are few books that deal with the Science of Education. This volume is the work of a man who said there were great principles at the bottom of the work of the despised schoolmaster. It has set many a teacher to thinking, and in its new form will set many more.

Our edition will be found far superior to any other in every respect. The annotations of Mr. Sheib are invaluable. The more important part of the book are emphasized by leading the type. The type is clear, the size convenient, and printing, paper, and binding are most excellent.

Mr. Philbrick so long superintendent of the Boston schools hold this work in high esteem.

Col. F. W. Parker strongly recommends it.

Jos. MacAlister, Supt. Public Schools, Philadelphia, says:—"It is one of the first books which a teacher deserves of understanding the scientific principles on which his work rests should study."

S. A. Ellis, Supt. of Schools, Rochester N. Y. says:—"As a pointed and judicious statement of principles it has no superior."

Thos. M. Balliet, Supt. of Schools, Reading. Pa., says:—"The work is a classic on Education."

J. M. Greenwood, Supt. Schools, Kansas City, says:—"I wish every teacher of our country owned a copy and would read it carefully and thoughtfully."

Prest. E. A. Sheldon, Oswego Normal Schools, says:—"For more than 20 years it has been our text-book in this subject and I know of no other book so good for the purpose."

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Philadelphia Record.—"Has been ranked among educational classics for more than a quarter of a century."

Educational News.—"Tate was the first to give us the maxims from the 'known to the unknown' etc."

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Lectures on Teaching. By J. G. FITCH, M.A., one of Her Majesty's Inspectors of Schools. England. Cloth, 16mo, 395 pp. Price, $1.25 ; *to teachers*, $1.00 ; by mail, postpaid.

Mr. Fitch takes as his topic the application of principles to the art of teaching in schools. Here are no vague and general propositions, but on every page we find the problems of the school-room discussed with definiteness of mental grip. No one who has read a single lecture by this eminent man but will desire to read another. The book is full of suggestions that lead to increased power.

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3. The volume has been at once adopted by several State Reading Circles.

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Lynn Evening Item.—"He gives admirable advice."

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New England Journal of Education: "This is eminently the work of a man of wisdom and experience. He takes a broad and comprehensive view of the work of the teacher, and his suggestions on all topics are worthy of the most careful consideration."

Brooklyn Eagle: "An invaluable aid for almost every kind of instruction and school organization. It combines the theoretical and the practical; it is based on psychology; it gives admirable advice on everything connected with teaching, from the furnishing of a school-room to the preparation of questions for examination."

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Writings of FRANCIS W. PARKER, Principal of Cook Co. Normal School, Ill., and other educators, among which is Joseph Payne's Visit to German Schools, etc. 188 large 8vo pages, 7½ x 10½ inches. Cloth. Price, $1.50; *to teachers*, $1.20; by mail, 14 cents extra. New edition in paper cover. Price, 75 cents; *to teachers*, 60 cents; by mail, 8 cents extra.

These articles contain many things that the readers of the "Talks on Teaching" desired light upon. The space occupied enabled Col. Parker to state himself at the length needed for clearness. There is really here, from his pen (taking out the writings of others) a volume of 330 pages, each page about the size of those in "Talks on Teaching."

1. The writings in this volume are mainly those of Col. F. W. Parker, Principal of the Cook County Normal School.

2. Like the "Talks on Teaching" so famous, they deal with the principles and practice of teaching.

3. Those who own the "Talks" will want the further ideas from Col. Parker.

4. There are many things in this volume written in reply to inquiries suggested in "Talks."

5. There is here really 750 pages of the size of those in "Talks." "Talks" sells for $1.00. This for $1.20 and 14 cents for postage.

6. Minute suggestions are made pertaining to Reading, Questions, Geography, Numbers, History, Psychology, Pedagogics, Clay Modeling, Form, Color, etc.

7. Joseph Payne's visit to the German schools is given in full; everything from his pen is valuable.

8. The whole book has the breeze that is blowing from the New Education ideas; it is filled with Col. Parker's spirit.

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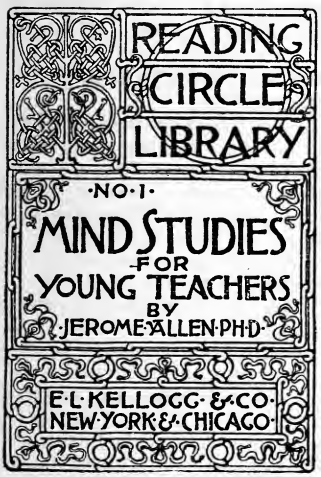

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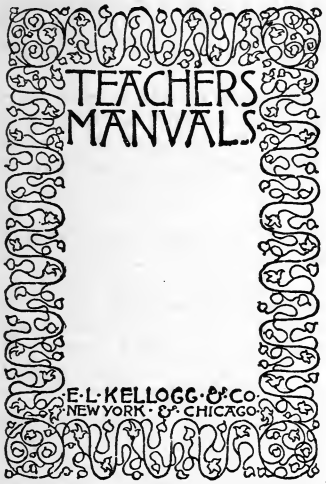

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4. It shows how regular attention and courteous behaviour may be secured.

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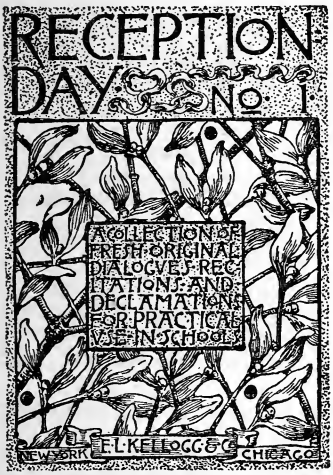

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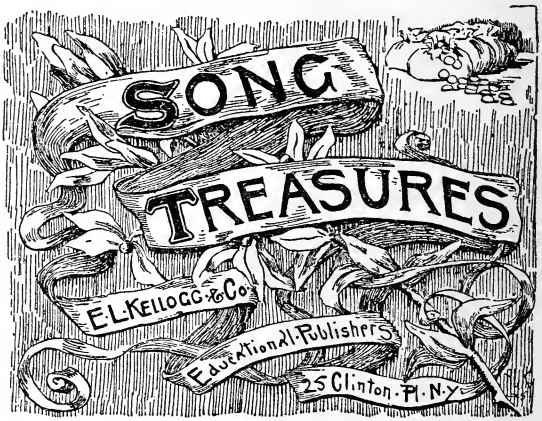

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